Jon Otto Fossum

Curriculum Vitae, November 2026

Physicist: soft and complex matter, 2D clay nanomaterials, X-ray and neutron scattering

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PROFILE

Physicist working on soft and complex matter. For three decades his main subject has been clay minerals as natural 2D nanomaterials, above all synthetic fluorohectorite: swelling, ordering and liquid-crystal behaviour of clay nanosheets; CO2 capture and gas separation in clays; structural-colour pigments from clay nanosheets; Pickering emulsions and particle-covered drops; and the electronic and magnetic properties of single clay nanosheets. Experimental work rests on X-ray and neutron scattering at large-scale facilities in Europe, Brazil and the USA.

Professor of Physics at NTNU (2000–2025), where he founded the Soft & Complex Matter Lab, which the RCN Evaluation of Natural Sciences (EVALNAT, 2024) singled out for the national assessment of the field. Since 2026, Founder and Director of SCML International AS, an independent R&D company working through partner institutions and large-scale facilities. Currently Senior Visiting Researcher at CNPEM, Campinas, Brazil; Temporary Participating Faculty Member of the Graduate Program at IFGW/UNICAMP, Brazil; Senior Affiliated Researcher (Bénévole) at PMMH–ESPCI Paris (CNRS/PSL University/Sorbonne Université), France; and Adjunct Senior Scientist at the University of Bayreuth (ICE²), Germany. Long-standing research collaborations in Brazil, France, Germany, Denmark, Sweden and the UK.

PERSONAL INFORMATION

Name	Jon Otto Fossum
Born	26 December 1953, Norwegian citizen
Contact	jo@scml.no · https://www.scml.no
ORCID	https://orcid.org/0000-0002-8952-303X
Scholar	https://scholar.google.com/citations?user=md2eyScAAAAJ
LinkedIn	https://www.linkedin.com/in/jon-otto-fossum-b80a5223/
Languages	Norwegian (native), English (excellent), French and Portuguese (very good), German (basic)

CURRENT POSITIONS AND AFFILIATIONS

2026–	Founder, owner and Director, SCML International AS (Soft and Complex Matter Lab International AS), Norway
2026–	FAPESP Senior Visiting Researcher, LNNano/CNPEM, Campinas, Brazil (from September 2026)
2026-	Temporary Participating Faculty Member of the Graduate Program, IFGW/UNICAMP, Brazil
2026–	Senior Affiliated Researcher (bénévole), PMMH–ESPCI Paris (CNRS/PSL University/Sorbonne Université/Université Paris Cité), France
2026–	Adjunct Senior Scientist, University of Bayreuth (ICE²), Germany

EDUCATION

1983	PhD in Physics, NTH (now Norwegian University of Science and Technology, NTNU), Norway (defended September 1983)
1978	MSc in Physics, NTH (now NTNU), Norway

PREVIOUS POSITIONS

2003–2025	Full Professor, Department of Physics, Faculty of Natural Sciences, NTNU, Norway
2000–2003	Associate Professor, Department of Physics, NTNU, Norway
1997–1999	Research Scientist, Department of Physics, NTNU, Norway
1989–1991	Research Scientist, Physics Department, Risø National Laboratory, Denmark
1987–1989	Research Scientist, Physics Department, Massachusetts Institute of Technology (MIT), USA
1985–1987	Postdoc, Chemistry Department, MIT, USA
1984–1985	Postdoc, Physics Department, University of Sherbrooke, Quebec, Canada
1983–1984	Research Assistant, Physics Department, NTH (now NTNU), Norway
1980–1983	Research Fellow (PhD), Physics Department, NTH (now NTNU), Norway
1978–1979	Researcher, Materials Technology, SINTEF, Trondheim, Norway

FELLOWSHIPS, AWARDS AND RESEARCH STAYS ABROAD

2026–2027	FAPESP Senior Visiting Researcher grant, LNNano/CNPEM, Campinas, Brazil (one year)
2016–2017	Sabbatical: Institut Pierre-Gilles de Gennes (IPGG) and ESPCI ParisTech, France; Joliot Visiting Professor at IPGG/ESPCI (1 month, 2016)
2012–2015	CNPq Science without Borders fellowship, Department of Mechanical Engineering, PUC-Rio, Brazil (3 months per year)
2011–2012	Invited Fellow, Centre for Advanced Study (CAS) at the Norwegian Academy of Science and Letters, Oslo (one year)
2008	Sabbatical with CNPq fellowship, Department of Physics, Universidade Federal de Pernambuco (UFPE), Recife, Brazil (6 months)
2004	Sabbatical: ESPCI ParisTech, France (6 months); Joliot Visiting Professor (1 month)
1985–1989	NTNF fellowship (1985–1987) for postdoctoral stay at MIT, USA, including work at Brookhaven National Laboratory
1983	Norway–Austria Cultural Exchange Fellowship, Physics Department, University of Vienna (1 month)

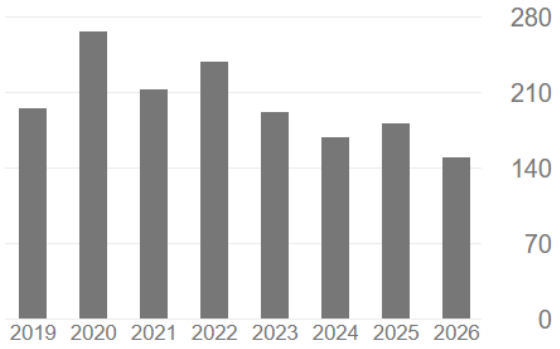
TRACK RECORD IN BRIEF

- About 150 peer-reviewed publications and 5 preprints (full list below); h-index 36, i10-index 91, 3898 citations (Google Scholar, October 2026)
- 202 talks 2002–2026, of which 141 invited (lectures, plenary and keynote talks, colloquia and seminars); more than 400 further conference contributions by co-workers and students
- Patents and patent applications: US 2023/0347314 A1 (appl. 18/026,683), "Using nano-functionalized clay minerals for gas separation"; US 2024/0318005 A1 (appl. 18/577,609), "Nano-functionalised clay minerals for structural colouration"; Norwegian priority patent application on structural-colour pigments, filed 2026 (Patentstyret)
- Research expeditions 2–4 times per year 2000–2026; leader of experiments at synchrotron and neutron facilities including ESRF (France), LNLS and Sirius (Brazil), MAX IV (Sweden), ISIS and

Diamond (UK), PLS (South Korea), ANL and BNL (USA), BESSY/HZB and DESY (Germany), ALBA (Spain) and others

- Founder of the Soft and Complex Matter Lab at NTNU and of SCML International AS; organiser of 11 international workshops in Oslo (2014–2025) and of the Geilo PhD Schools 2011–2025
- RCN Evaluation of Natural Sciences 2022–2023 (EVALNAT, 2024), research group report for the Soft and Complex Matter Lab, NTNU (Panel 03): grades on a scale of 1–5 (5 highest): 5 for organisation, 4/4 for research quality and 4/5 for societal impact. The international panel found the group "certainly a strong and original one in Norway and internationally", "very good at establishing long-term stable international collaborations", ranking "very highly in the national research landscape", and that it "deserves to be highlighted in the evaluation's national assessment of the area". The panel identified J.O. Fossum as the group's "true driving force in terms of scientific relationships". Report: https://softcomlab.com/background.html

	All	Since 2021
Citations	3898	1148
h-index	36	19
i10-index	91	34



Google Scholar citations (October 2026)

RESEARCH FUNDING AND PROJECT LEADERSHIP

Project leader of 20 grants from the Research Council of Norway (RCN) 2002–2026, totalling about NOK 73 million, plus coordination of an M-ERA.NET project and project leadership in Nordforsk and SIU programmes, and co-coordination of an H2020 MSCA Innovative Training Network (about €3 million): altogether about €11 million in competitive funding. The research projects have all been run with extensive international collaboration, with partners and large-scale facilities in Europe, Brazil and the USA. RCN numbers refer to the RCN project bank (prosjektbanken.forskningsradet.no).

Research Council of Norway, project leader

Years	Project (RCN no., programme)	MNOK	International partners
2021–2026	Clay nanolayers for encapsulation of drops or nanoparticles (315135, NANOTEKNOLOGI)	11.6	Univ. Bayreuth (DE); Univ. São Paulo (BR); Univ. Copenhagen (DK); ISIS (UK); Chalmers (SE); ESPCI (FR). Norwegian partner: UiO
2018–2024	Nanofluids for IOR and Tracer Technology (280643, PETROMAKS2)	15.9	MAX IV (SE); ESRF (FR); Univ. Bayreuth (DE); Diamond (UK); PUC-Rio and USP (BR); IPGG–ESPCI and Univ. Rennes 1 (FR). Norwegian partners: IFE, NORCE
2015–2023	Graphene-NanoClay Systems (250619, NANO2021)	6.6	Univ. Manchester (UK); Chalmers (SE); Univ. Bayreuth (DE); IUPUI (USA); Czech Republic. Norwegian partner: IFE
2014–2017	Particle stabilized emulsions for EOR (234125, PETROMAKS2)	2.5	PUC-Rio and UFPE (BR); France; USA. Norwegian partner: IFE
2013–2017	Physical capture and release of drug molecules by clays: X-ray and neutron studies (228551, SYNKNØYT)	4.1	Univ. Copenhagen (DK, joint PhD); MAX IV (SE); ESRF–SNBL (FR); LNLS (BR)
2010–2015	Sorption and Migration of CO2 in Porous Media (200041, CLIMIT)	18.3	France; USA. Norwegian partners: UiO, IFE

Years	Project (RCN no., programme)	MNOK	International partners
2006–2011	Interconnected Physical Phenomena as manifested in Nano-Layered Silicates (Clays) (171300, FRINAT)	5.8	ENS Paris and Univ. Paris 6 (FR); Univ. Brasília and LNLS (BR). Norwegian partners: UiO, IFE
2004–2008	Structure and Dynamics of Soft and Complex Nanomaterials (163558, NANOMAT)	2.7	Brazil (dedicated sub-project: Collaboration with Brazil – physics of complex nanomaterials); other international groups. Norwegian partners: UiO, IFE
2002–2006	Experimental investigations into liquid crystalline phases in colloidal platelet systems (148865, Physics)	1.9	
2002–2005	Postdoctoral fellowship: physical phenomena in clays (152426, ESRF programme)	1.4	ESRF (FR)
2003–2004	Atomic Force Microscope (154388, heavy equipment)	1.5	
2008–2013	Two Aurora French–Norwegian researcher exchange grants (187697, 221640, IS-AUR)	0.09	France
2008	Conference grant, 27th IUGG Conference on Mathematical Geophysics, Longyearbyen (186064)	0.10	
2016–2024	Six workshop grants, Annual International Workshop on Soft & Complex Matter, DNVA Oslo (268936, 281678, 305741, 332495, 339150, 354649)	0.42	International speakers and participants

International projects

2021–2025 PICKFOOD – Pickering emulsions for food applications, H2020 MSCA-ITN-ETN (grant 956248), coordination transferred from DTU (Denmark) to NTNU (M. Knaapila coordinator); J.O. Fossum co-coordinator and work-package leader; total budget about €3 million; 22 beneficiaries and partners worldwide

2017–2021 Cellcolor: Fabricating cellulose nanocomposites for structural coloration, M-ERA.NET project (Norwegian part funded and administered by RCN, 272919, NOK 6.9 million); J.O. Fossum coordinator, M.H. Godinho (NOVA University Lisbon) co-coordinator; partners NOVA University Lisbon and Instituto Superior Técnico (Portugal), IFE, Giamag Technologies, Borregaard and Snøhetta (Norway)

2010–2014 Project leader, Nordforsk Nordic Researcher Network in Soft Matter Physics (NORDSOFT), about 100 scientists in about 10 groups in Denmark, Finland, Norway and Sweden (about 0.7 M€)

Other funding

2026–2027 FAPESP Visiting Researcher grant, granted to LNNano/CNPEM, Campinas, Brazil: research at CNPEM, UNICAMP, USP, advanced soft-matter course at UNICAMP, workshops and joint projects on emulsions, phyllosilicates, nanocomposites and clays for gas separation

2016–2020 Partner in CO2 Capture and Retention by Smectite Clays (250728, RCN FRINATEK, 8.7 MNOK, project leader K.D. Knudsen, IFE); partners in the USA and Denmark

2014 Project leader, Soft and Complex Matter, SIU UTFORSK programme (UTF-2014/10061), (about 0.8 M€)

2013–2015 Project leader, Complex Fluids in Confined Environments, CAPES–SIU programme (CAPES-SIU-2013/10046), NTNU–PUC-Rio (about 0.65 M€)

2012–2015	CNPq project, Department of Mechanical Engineering, PUC-Rio, Brazil: visiting-researcher fellowship (3 months per year), one postdoctoral position and running costs; proposal prepared jointly with M.S. Carvalho (PUC-Rio), who submitted it as coordinator

INTERNATIONAL COLLABORATION NETWORK

Active collaborations, most with recent joint publications:

Brazil	C.R. Miranda (Physics), K. Araki and V.R.L. Constantino (Chemistry), Universidade de São Paulo; M. Bizeto, UNIFESP; L.G. de la Torre and R.L. Cunha, UNICAMP; G.J. da Silva and L. Michels, Universidade de Brasília; R. Droppa Jr., UFABC; R.P. Tenório, CNEN/CRCN-NE Recife
Germany	J. Breu, Inorganic Chemistry, University of Bayreuth
France	E. Clément, PMMH–ESPCI Paris; P. Tabeling, IPGG/ESPCI Paris; F. Brochard-Wyart, Institut Curie, Paris
Denmark	H.N. Bordallo, Neutron Scattering, University of Copenhagen; J. Kjelstrup Hansen, University of Southern Denmark (SDU)
Sweden	T.S. Plivelic, MAX IV Laboratory, Lund
United Kingdom	L.P. Cavalcanti, ISIS Neutron and Muon Source
Cuba	E. Altshuler and A. Rivera, University of Havana
Norway	P.G. Dommersnes, M. Knaapila and I. Simonsen, NTNU Physics; S. Raaen, NTNU; K.D. Knudsen, IFE/NTNU; A.T. Skjeltorp, IFE/Giamag Technologies; K.W. Bø Hunvik, FFI

SUPERVISION

Totals	18 PhD graduates (12 as main supervisor, 6 as co-supervisor), 4 PhD students in thesis writing, 53 MSc graduates, 12 postdocs (11 at NTNU, 1 at PUC-Rio)

Several former students and postdocs now hold academic positions, among them professors at the University of Brasília (G.J. da Silva, L. Michels), Université de Rennes 1 (Y. Méheust), UNESP Araraquara (É.C. dos Santos) and University of Petroleum and Energy Studies, Dehradun (K. Parmar).

PhD graduates, main supervisor (NTNU Physics; year of defence in brackets)

1. Konstanse Kvalem Seljelid (2026)
2. Rini Padinjakkara Ravindranathan (2026)
3. Namrah Azmi (2025)
4. Paulo Henrique Michels-Brito (2021), now Researcher, Elkem, Kristiansand, Norway
5. Everton Carvalho dos Santos (2017), now Professor, UNESP, Araraquara, Brazil
6. Alexander Mikkelsen (2016), now Researcher, Norwegian Defence Research Establishment (FFI)
7. Leander Michels (2015), now Professor, University of Brasília, Brazil
8. Elisabeth Lindbo Hansen (2013), now Researcher, Norwegian Radiation and Nuclear Safety Authority, Oslo
9. Henrik Hemmen (2012), now CTO, reMarkable AS, Oslo
10. Zbigniew Rozynek (2011), now at IFE, Kjeller, Norway
11. Davi de Miranda Fonseca (2008), now General Manager, PROMEC Proteomics and Metabolomics Core Facility, NTNU
12. Kanak Parmar (2006), now Professor, University of Petroleum and Energy Studies, Dehradun, India

PhD graduates, co-supervisor (year of defence in brackets)

1. Negar Azizi (2026, NTNU, main supervisor P.G. Dommersnes)
2. Etien Martinez Roman (2022, NTNU, main supervisor P.G. Dommersnes)

3. Kristoffer W. Bø Hunvik (2020, NTNU, with S. Raaen), now Researcher, Norwegian Defence Research Establishment (FFI)
4. Mário Altoé (2015, University of Brasília, with G.J. da Silva; 12 months at NTNU 2014–15), now Professor, Universidade Federal do Espírito Santo
5. Giovanni Grassi (2015, University of Brasília, with G.J. da Silva; 12 months at NTNU 2014), now Professor, Universidade de Brasília
6. Rene Castberg (2014, University of Oslo, with K.J. Måløy), now Senior Researcher, DNV, Oslo

PhD students in thesis writing

- Osvaldo Trigueiro Neto, NTNU Physics (from 2019), main supervisor
- Yue Yu, NTNU Physics (from 2021), main supervisor
- Bruno Telli Ceccato, NTNU Physics, sandwich PhD with UNICAMP, Brazil (from 2022), within the PICKFOOD network, main supervisor
- Alexander Sexton, NTNU Physics (from 2022), co-supervisor

Postdocs, main supervisor

1. Barbara Pacáková, NTNU 2017–2025, then Researcher, Department of Physics, NTNU
2. Andrew Akanno, NTNU 2022–2024, then Researcher, University of Wisconsin, USA
3. Paulo Henrique Michels-Brito, NTNU 2021–2024, then Researcher, Elkem, Kristiansand, Norway
4. Azarmidokht Gholamipour-Shirazi, PUC-Rio, Brazil 2012–2016, with M. Carvalho
5. Zbigniew Rozynek, NTNU 2011–2013, then IFE, Kjeller, Norway
6. Davi de Miranda Fonseca, NTNU 2010–2011, then Department of Cancer Research and Molecular Medicine, NTNU
7. Bao-Xiang Wang, NTNU 2007–2010, then Qingdao University of Science and Technology, China
8. Min Zhou, NTNU 2007–2008, then MD Anderson Cancer Center, Houston, USA
9. Ahmed Gmira, NTNU 2003–2007, then Schlumberger Research Center, Dhahran, Saudi Arabia
10. Yves Méheust, NTNU 2002–2006, then Université de Rennes 1, France
11. Renaud Toussaint, NTNU 2002–2003, then CNRS, Institut de Physique du Globe, Strasbourg, France
12. Geraldo José da Silva, NTNU 2000–2002, then Professor, University of Brasília, Brazil

MSc graduates, main supervisor (NTNU Physics, 53 since 1999)

2025	Martinius Synstad Simonsen (thesis work at Sapienza University of Rome, Italy)
2023	Sunniva Omdal, Torstein Nordvik
2020	Paul Røren Monceyron, Kristian Huseby Olsen
2019	Konstanse Seljelid, Vegard Josvanger, Asbjørn Torsvig Kruger
2018	Marie Hansteen (thesis work at DSM Materials Science Center, Netherlands)
2015	Tommy F. Kristiansen, Torstein Eidsnes Penne (thesis work with SINTEF Energy)
2014	Humaira Idris, Arne Halvor Thingstad Pedersen, Svein Henrik Skjellanger
2013	Ane Kamilla Hovdan, Emilie Lund Johnsrud and Janine Ravnanger Seth (both 7 months at PUC-Rio, Brazil)
2012	Øystein Anmarksrud, Kristian Hox, Knut Kjerstad, Alexander Mikkelsen (6 months at PUC-Rio), Karin Rustenberg
2011	Beate Krefting Capellen, Moshen Dahesh, Erlend G. Rolseth
2010	Eirik Voje Blindheim, Kjetil Hersvig, Mats Sigstad
2008	Bård Martin Kjelling, Elisabeth Lindbo Hansen, Knut Magnus (1 month at UFPE), Christer Honore Ersland, Henrik Hemmen (6 months at UFPE), Nils Ivar Ringdal
2007	Ariel Fischer, Hege S. Bjørnsen, Jorunn Hølto, Christian A. Nielsen, Helene Rødal, Børge Schjelderupsen, Svein Å. Slungård, Lars Ramstad Alme (1 month at UFPE), Yunus Naqvi

2005	Steinar Thorshaug
2003	Herbert Gustav Yankson
2002	Vegard Bergaplass, Robin Kumar Sanga, Hans Bakken
2001	Tommy Nakken Aalerud, Magnus W. Haakestad
2000	Erlend Gudding
1999	Simen Berg Lutnæs, Frøydis Romunseth

TEACHING AND COURSE DEVELOPMENT

2026–2027	Development of an advanced soft-matter course (MSc–PhD level) at UNICAMP/CNPEM, Campinas, Brazil, to run from 2027 online and in person
1999–2025	Professor of Physics, NTNU: teaching at BSc, MSc and PhD level
2000–2025	Developed and taught MSc/PhD course FY8920 "Light, Neutron and X-Ray Scattering" (7.5 ECTS)
2010–2025	Developed and taught PhD course FY8203 "Soft Condensed Matter" (7.5 ECTS), later also at MSc level as TFY4203; taught jointly in 2014 and 2016 with six Brazilian universities (PUC-Rio, UnB, USP, UFABC, UFSCar, UFPE), funded by SIU and RCN (Petromaks2) grants
2013–2025	Developed and taught Experts in Teams MSc course TFY4852 "Soft Technologies" (7.5 ECTS)
2017–2021	Developed and taught MSc/PhD course "Non-linear Dynamics" (7.5 ECTS)

Geilo PhD Schools (Bardøla Høyfjellshotell, Geilo, Norway; 4.5 ECTS each), organiser

2025	Complex Matter and AI: Connectivity, Information and Adaption, 10–20 March 2025
2023	The Physics of Evolving Matter continued: Communication, Connectivity and Growth, 13–23 March 2023
2022	The Physics of Evolving Matter: Memory, Learning and Evolution, 21–31 March 2022
2019	Evolving Soft Matter: Shape, Dynamics and Functionality, 11–21 March 2019
2017	Physics Inspired by Living Matter, 20–30 March 2017
2015	Cooperative Particles: Patchy Colloids, Active Matter and Nanofluids, 16–26 March 2015 (about 20 participants from Brazil)
2013	Soft Matter in Confinement: Systems from Biology to Physics, 11–21 March 2013
2011	Cooperative Phenomena in Flows: Multidisciplinary Perspectives, 4–14 April 2011

ORGANISATION OF SCIENTIFIC MEETINGS

In addition to the Geilo PhD Schools listed above:

2027	Main convener of the session on clay-based materials for greenhouse gases, "Clays & Gases" theme, CLAY2027 (AIPEA), Spain
2026	Organiser, Symposium L "Clay Minerals as Strategic Functional Materials for Sustainable Technologies", XXIV B-MRS Meeting, Curitiba, Brazil, 27 September – 1 October 2026
2025	Main organiser, 11th International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters (DNVA), Oslo, 25–26 September 2025
2025	Convener of three symposia, 18th International Clay Conference, Dublin, Ireland, 13–18 July 2025
2024	Main organiser, 10th International Workshop on Soft & Complex Matter, DNVA, Oslo, 27–28 September 2024
2023	Organiser, Workshop on Mesostructures and Microfluidics, UNICAMP, Campinas, Brazil, 26–27 October 2023

2023	Main organiser, 9th International Workshop on Soft & Complex Matter, DNVA, Oslo, 15–16 September 2023
2023	Organiser, Topical Seminar on Materials Science of Natural Materials, Nelson Mandela African Institution of Science and Technology (NM-AIST), Arusha, Tanzania, 20 July 2023
2023	Main organiser, Soft Matter Days 2023, NTNU, Trondheim, 17–20 January 2023, including the 19th Nordic Workshop on Scattering from Soft Matter, 17–18 January 2023
2022	Main organiser, 8th International Workshop on Soft & Complex Matter, DNVA, Oslo, 7–8 October 2022
2021	Main organiser, 7th International Workshop on Soft & Complex Matter, DNVA, Oslo, 12–13 November 2021
2019	Main organiser, 6th International Workshop on Soft & Complex Matter, DNVA, Oslo, 6–7 October 2019
2018	Main organiser, 5th International Workshop on Soft & Complex Matter, DNVA, Oslo, 21–22 October 2018
2018	Main organiser, Soft Matter Days, NTNU, Trondheim, 24–27 April 2018
2017	Main organiser, 4th International Workshop on Soft & Complex Matter, DNVA, Oslo, 29–30 October 2017
2017	Convener of sessions NT-09 (Self-organization from clay particles) and NT-14 (CO2 or methane capture by clays), co-convener of NT-11, 16th International Clay Conference, Granada, Spain, 17–21 July 2017
2016	Session chair, 4th November Conference, RD&I Collaboration between Norway and Brazil (BN21, Innovation Norway), CBPF, Rio de Janeiro, 31 October – 1 November 2016
2016	Main organiser, 3rd International Workshop on Soft & Complex Matter, DNVA, Oslo, 6–7 October 2016
2016	Chairperson, ECIS 2016, Rome, Italy, 4–9 September 2016, and ERMR2016, Incheon, South Korea, 4–8 July 2016
2016	Main organiser, 4th International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas, Brazil, 22–25 February 2016 (about 60 participants)
2015	Main organiser (with M. Carvalho), Norwegian–Brazilian Workshop on Soft and Complex Matter, PUC-Rio, Brazil, 25 November 2015
2015	Organiser, 2nd International Workshop on Soft & Complex Matter, DNVA, Oslo, 15–16 October 2015
2015	Scientific/organising committee, Materials Science in the Age of Sustainability, Havana, Cuba, 29 June – 1 July 2015; main organiser (with E. Altshuler), MarchCOMeeting'15-JuneEdition, Havana, 24–26 June 2015
2015	Organising committee and session convener, Nordic Physics Days, NTNU, Trondheim, 9–12 June 2015
2014	Main organiser, Nordforsk Nordic Workshop on Soft Matter Physics, DNVA, Oslo, 29–30 September 2014
2014	Main organiser (with M. Carvalho), 3rd International Workshop on Complex Physical Phenomena in Materials, PUC-Rio, Brazil, 17–22 February 2014 (about 60 participants)
2013	Main organiser (with G.J. da Silva), Mini-Workshop on Multi-Component Soft and Complex Fluids, ICCMP, Universidade de Brasília, 15–16 July 2013; (with M. Carvalho) Mini-Workshop on Complex Drops and Emulsions, PUC-Rio, 12 July 2013
2013	Convener, symposium "Self-organization from Clay Particles: From Nano to Macro", and scientific committee, 15th International Clay Conference, Rio de Janeiro, 7–11 July 2013
2013	Main organiser (with A. Jesorka), Nordforsk International Workshop on Soft Matter Physics and Biomembranes, Reykjavik, Iceland, 21–24 May 2013

2012	Main organiser (with G. Vasconcelos), Mini-Workshop on Complex Flows and Turbulence, UFPE, Recife, Brazil, 7 December 2012
2012	Main organiser (with E. Bouchaud), International Workshop on Soft Matter Physics and Complex Flows, Svolvær, Lofoten, Norway, 22–25 May 2012 (about 60 participants from 10 countries)
2012	Scientific committee, New Materials in the Age of Convergence, Havana, 12–16 March 2012; main organiser (with E. Altshuler), MarchCOMeeting'12, Havana, 5–8 March 2012 (about 80 participants from 10 countries)
2012	Main organiser (with G.J. da Silva), International Mini-Workshop on Complex Flows, ICCMP, Universidade de Brasília, 6–7 February 2012; (with G. Vasconcelos) 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas, Brazil, 31 January – 3 February 2012 (about 60 participants from 8 countries)
2011	Scientific committee, International Workshop on Complex Phenomena in Superconductors and Magnetic Systems, Øystese, Norway, 29 August – 2 September 2011; organising committee, 1st Nordic Workshop on Soft Matter Physics (Nordforsk), Aarhus, Denmark, 28 June – 1 July 2011
2010	Main organiser (with M. Engelsberg), 1st International Workshop on Complex Physical Phenomena in Materials, Recife, Brazil, 14–17 December 2010 (about 40 participants from 6 countries)
2010	Main organiser (with G.J. da Silva), International Workshop on CO2 and Fluids in Nanoscience, ICCMP, Universidade de Brasília, 7–10 December 2010 (about 40 participants from 8 countries)
2010	Organiser (with E. Bouchaud), Mini-Workshop on Complex Matter Physics, NTNU, Trondheim, 20–21 September 2010
2009	Organising committee, Biannual Meeting of the Norwegian Physical Society, Røros, 12–14 August 2009; convener, Session NM8 "Self-assembly from Clay Particles: From Nano to Macro", 14th International Clay Conference, Castellaneta Marina, Italy, 14–20 June 2009
2008	Organising committee, 27th IUGG Conference on Mathematical Geophysics, Longyearbyen, Svalbard, 15–20 June 2008; main organiser, 5th Nordic Workshop on Scattering from Soft Matter, NTNU, Trondheim, 6–7 February 2008 (about 50 participants from about 10 countries)
2007	Organising committee, The Complex Conference 2007 (satellite of NANOMAT 2007), Bergen, 8 June 2007
2006	Main organiser, Biannual Meeting of the Condensed Matter and Atomic Physics Division, Norwegian Physical Society, Wadahl, 13–15 September 2006 (about 70 participants from about 10 countries)
2004	Main organiser, Biannual Meeting of the Condensed Matter and Atomic Physics Division, Norwegian Physical Society, Wadahl, 16–18 September 2004 (about 70 participants)

COMMISSIONS OF TRUST

Evaluation panels and advisory boards

2019–2021	Member, COST Review Panels: OC-2018-2 (2019), OC-2019-1 RP 4 (2020) and OC-2021-1 RP 4 (2021), "Advancing knowledge on physics, (nano)materials and (bio)chemical processes"
2013	Member, External Expert Panel, EU COST Domain Materials, Physics and Nanosciences (MPNS)
2012–	International Scientific Advisory Board, International Center for Condensed Matter Physics (ICCMP), Universidade de Brasília, Brazil

2010–2014	International Scientific Advisory Board, Centre of Physics, University of Minho, Braga, Portugal
2007–2009	One of six members of the physics panel of the Foundation for Science and Technology (FCT), Portugal, deciding physics grants; 2008 member of the panel evaluating all physics groups in Portugal

Editorial work and reviewing

2015–	Editorial Board, Scientific Reports (Nature Publishing Group)
2012–	Editor, Revista Cubana de Física
2000–	Regular reviewer for APS and ACS journals, Science, Nature Publishing Group, MRS Proceedings and others

PhD opponent and jury member

2024	Opponent, PhD defence of Niels Mendl, University of Twente, Netherlands
2022	Opponent, PhD defence of Marika Gugole, Chalmers University of Technology, Sweden
2020	Jury member, PhD defence of Georgios Birmpilis, Chalmers University of Technology, Sweden
2017	Opponent, PhD defence of Axel Thuresson, Lund University, Sweden
2015	Opponent, PhD defence of P. Daniel Svensson, Lund University, Sweden
2013	Opponent, PhD defence of Haijiang Zhang, Chalmers University of Technology, Sweden; jury member, PhD defence of Baudouin Saintyves, CEA-Saclay and ESPCI ParisTech, France

Also member of evaluation committees in France, Sweden, Austria and Portugal.

Networks and societies

2014–2018	Management Committee, COST Action MP1305 "Flowing Matter"
2010–2014	Project leader, Nordforsk Nordic Researcher Network in Soft Matter Physics (NORDSOFT), about 100 scientists in about 10 groups (Denmark, Finland, Norway, Sweden)
2009–2013	Board member, Norwegian Physical Society; Chair of its Division for Condensed Matter Physics with Atomic Physics (board member from 2013)
2006–2010	Management Committee, COST Action P21 "The Physics of Droplets"
2000–2025	Member of various committees, Faculty of Natural Sciences and Department of Physics, NTNU
1985–	Member of the American Physical Society (APS), the Materials Research Society (MRS) and the Norwegian Physical Society

TEN SELECTED PUBLICATIONS

Chosen to cover the main research lines, newest first.

1. *Naturally occurring 2D semiconductor with antiferromagnetic ground state*, B. Pacáková, B. Lahtinen-Dahl, A. Kirch, H. Demchenko, V. Osmundsen, C.A. Fuller, D. Chernyshov, D. Zakutna, C.R. Miranda, S. Raaen, **J.O. Fossum**, npj 2D Materials and Applications 9, 38 (2025)
2. *Large bandgap insulating superior clay nanosheets*, B. Pacáková, P.E. Vullum, A. Kirch, J. Breu, C.R. Miranda, **J.O. Fossum**, MRS Bulletin 47 (2022), Impact article
3. *Bright, noniridescent structural coloration from clay mineral nanosheet suspensions*, P.H. Michels-Brito, V. Dudko, D. Wagner, P. Markus, G. Papastavrou, L. Michels, J. Breu, **J.O. Fossum**, Science Advances 8, eabl8147 (2022)

4. *A nano-silicate material with exceptional capacity for CO2 capture and storage at room temperature*, L.P. Cavalcanti, G.N. Kalantzopoulos, J. Eckert, K.D. Knudsen, **J.O. Fossum**, Scientific Reports 8, 11827 (2018)
5. *Electroformation of Janus and patchy capsules*, Z. Rozynek, A. Mikkelsen, P. Dommersnes, **J.O. Fossum**, Nature Communications 5, 3945 (2014)
6. *Active structuring of colloidal armour on liquid drops*, P. Dommersnes, Z. Rozynek, A. Mikkelsen, R. Castberg, K. Kjerstad, K. Hersvik, **J.O. Fossum**, Nature Communications 4, 2066 (2013)
7. *Swelling transition of a clay induced by heating*, E.L. Hansen, H. Hemmen, D. de Miranda Fonseca, C. Coutant, K.D. Knudsen, T.S. Plivelic, D. Bonn, **J.O. Fossum**, Scientific Reports 2, 618 (2012)
8. *Quick clay and landslides of clayey soils*, A. Khaldoun, P. Moller, A. Fall, G. Wegdam, B. De Leeuw, Y. Méheust, **J.O. Fossum**, D. Bonn, Physical Review Letters 103, 188301 (2009)
9. *Physical phenomena in clays*, **J.O. Fossum**, Physica A 270, 270 (1999)
10. *Experimental evidence for quenched random strain fields in mixed cyanide crystals*, **J.O. Fossum**, C.W. Garland, Physical Review Letters 60, 592 (1988)

FIFTEEN SELECTED INVITED PRESENTATIONS

At internationally established conferences, institutions and advanced schools (full list of talks below).

- XXIV B-MRS Meeting, Curitiba, Paraná, Brazil, 27 September – 1 October 2026
- I Brazilian Neutron User Meeting (I-RUN), São Paulo, Brazil, 26–28 January 2026
- 18th International Clay Conference (ICC), Dublin, Ireland, 13–18 July 2025
- 2nd International Sirius Workshop on Heterogeneous and Hierarchical Materials (H2Mat), Sirius synchrotron, Campinas, Brazil, 8 November 2024
- ISIS Neutron and Muon Source, UK, 22 July 2024
- MAX IV User Meeting 2024, Lund, Sweden, 17 January 2024
- Harvard University, School of Engineering and Applied Sciences, Cambridge, Massachusetts, USA, 5 December 2023
- Instituto de Física Colloquium, Universidade de São Paulo, Brazil, 8 December 2022
- APS March Meeting, online, 15–19 March 2021
- APS March Meeting, Denver, Colorado, USA, 2–6 March 2020
- II Brazil–Argentine Microfluidics Congress (keynote), Córdoba, Argentina, 22–25 October 2019
- 104ª Reunión de la Asociación Física Argentina (plenary), Santa Fe, Argentina, 30 September – 3 October 2019
- Material Science in the Age of Sustainability (plenary), Havana, Cuba, June 2015
- 15th International Clay Conference (plenary), Rio de Janeiro, Brazil, July 2013
- MRS Fall Meeting, Symposium D: Materials in Transition – Insights from Synchrotron and Neutron Sources, Boston, USA, November 2007

PUBLICATIONS

Preprints

1. *Layered matter that maintains spacing but loses stacking order*, O. Trigueiro Neto, P.H. Michels-Brito, B.T. Ceccato, N.J. Eichstaedt, L.P. Cavalcanti, T.S. Plivelic, J. Breu, **J.O. Fossum**, arXiv:2608.19365 [cond-mat.soft] (2026)
2. *3D micro–X-ray tomography of lumen space in dried stem, branch, and outer tissues of Moringa oleifera: A structural case study*, N. Azmi, B.T. Ceccato, H. Suhonen, **J.O. Fossum**, Research Square, doi:10.21203/rs.3.rs-10326901/v1 (2026)

3. *Multi-scale structure and slow dynamics of pH 3 Moringa oleifera seed colloids and all-Moringa Pickering emulsions*, N. Azmi, B.T. Ceccato, S. Rathod, A.R. Passos, R.P. Tenório, A. Kirch, A.E. Terry, **J.O. Fossum**, SSRN, doi:10.2139/ssrn.7285964 (2026)
4. *CO2 Adsorption in Nickel-exchanged Natural Montmorillonite and Bentonite*, K.K. Seljelid, B. Pacáková, N. Heymans, H. Demchenko, T. Nordvik, S. Omdal, Y. Yu, A. Sexton, P.H. Michels-Brito, G. De Weireld, **J.O. Fossum**, SSRN, doi:10.2139/ssrn.6064027 (2026)
5. *Exceptionally High-Affinity Capture and Visual Indication of Methylene Blue Using High-Layer-Charge Na-Fluorohectorite Nanosheets*, Y. Yu, P.H. Michels-Brito, B. Pacáková, O. Trigueiro Neto, A. Akanno, O. Khoruzhenko, J. Breu, **J.O. Fossum**, SSRN, doi:10.2139/ssrn.5846712 (2025)

Peer-reviewed publications (highlights in bold)

1. *High-Internal-Phase Pickering Emulsions Stabilized by β-Lactoglobulin Nanoparticles: Effects of Rheology, Stability, and Aging*, R.P. Ravindranathan, G. Helgesen, M. Knaapila, A. Terry, **J.O. Fossum**, K.D. Knudsen, Langmuir, doi:10.1021/acs.langmuir.6c04106 (2026)
2. *Pickering emulsions revisited: interfacial stability, particle geometry, and emerging predictive strategies*, N. Azmi, B.T. Ceccato, A. Kirch, F. Brochard-Wyart, C.R. Miranda, **J.O. Fossum**, The European Physical Journal Special Topics 235, 3259–3288 (2026)
3. *Sustainable nitrogen-doped graphene synthetized from waterborne toxic dye pollutants in nanolayered silicate*, B. Pacáková, M. Matejdes, K. Thangaian, H. Demchenko, D. Wagner, L. Michels, P.H. Michels-Brito, M.V. Blanco, K. Araki, S. Raaen, J. Breu, **J.O. Fossum**, The European Physical Journal Special Topics 235 3289–3299 (2026)
4. *High capture capacity of CO2 in a nickel intercalated Ti3C2Tx MXene–fluorohectorite clay heterostructure*, B. Pacáková, A. Thakur, N. Chandran B.S., N. Heymans, I. Matulkova, H. Demchenko, A.H. Sexton, K.W. Bø Hunvik, G. De Weireld, B. Anasori, S. Raaen, **J.O. Fossum**, Nanoscale 18, 9643-9649 (2026)
5. *Geometric Domain Selection in Nanosheet Suspensions: Why Structural Color and X-Ray Scattering Probe Different Platelet Populations*, B. Pacáková & **J.O. Fossum**, Advanced Optical Materials 14, e70966 (2026)
6. ***X-ray diffraction uncovers a natural 2D semiconductor with magnetic order*, B. Pacáková, B. Lahtinen-Dahl, A. Kirch, H. Demchenko, V. Osmundsen, C.A. Fuller, D. Chernyshov, D. Zakutna, C.R. Miranda, S. Raaen & J.O. Fossum, European Synchrotron Radiation Facility – ESRF Highlights 2025 (2026)**
7. *Potential of Ethyl Cellulose as a Stabilizer of Nonaqueous Food-Grade Emulsions*, B.T. Ceccato, S. Rathod, N. Azmi, A. Akanno, R.L. Cunha, L.G. de la Torre, **J.O. Fossum**, European Journal of Lipid Science and Technology 127(12), e70083, doi:10.1002/ejlt.70083 (2025)
8. *Comparative Analysis and Characterization of Various Extraction Techniques of Food-Grade Particles from Moringa oleifera Lam. Seeds*, N. Azmi, A. Akanno, H. Demchenko, N. Sanga, **J.O. Fossum**, European Journal of Lipid Science and Technology 127(12), e70071, doi:10.1002/ejlt.70071 (2025)
9. *β-Lactoglobulin Stabilized Emulsions: A Small Angle X-Ray Scattering Study on Stability, Ageing, and Thermal Effects*, R.P. Ravindranathan, **J.O. Fossum**, M. Knaapila, K.D. Knudsen, European Journal of Lipid Science and Technology 127(12), e70056, doi:10.1002/ejlt.70056 (2025)
10. *Pickering emulsions stabilized with β-lactoglobulin nanoparticles studied by small angle X-ray scattering: stability, aging and temperature effects*, R.P. Ravindranathan, E. Olsmats, B.T. Ceccato, M. Knaapila, A.R. Rennie, **J.O. Fossum**, K.D. Knudsen, Soft Matter 21(33), 6536-6549, doi:10.1039/D5SM00381D (2025)
11. *Moringa Oleifera as a multifunctional bioresource: Nutritional, medicinal and its pickering emulsifying potential*, N. Azmi, A. Akanno, C. Jacobsen, **J.O. Fossum**, Food Hydrocolloids for Health, 8, 100231, doi:10.1016/j.fhfh.2025.100231 (2025)
12. *Measuring Bending Rigidity and Compression Resistance in Pickering Layers*, N. Azizi, S. Rathod, J.V.I. Timonen, **J.O. Fossum**, P.G. Dommersnes, European Journal of Lipid Science and Technology 127(12), e70042, doi:10.1002/ejlt.70042 (2025)

13. *Intrinsic fluorescence in Moringa Oleifera seed extract*, N. Azmi, S. Rathod, B.T. Ceccato, R.K. Mikkelsen, **J.O. Fossum**, Talanta Open, 12, 100500, doi:10.1016/j.talo.2025.100500 (2025)
14. *Corrigendum to "Intrinsic fluorescence in Moringa Oleifera seed extract" [Talanta Open volume (12) 100500]*, N. Azmi, S. Rathod, B.T. Ceccato, R.K. Mikkelsen, **J.O. Fossum**, Talanta Open, 100518 (2025)
15. ***Naturally occurring 2D semiconductor with antiferromagnetic ground state*, B. Pacáková, B. Lahtinen-Dahl, A. Kirch, H. Demchenko, V. Osmundsen, C.A. Fuller, D. Chernyshov, D. Zakutna, C.R. Miranda, S. Raaen & J.O. Fossum, npj 2D Materials and Applications, 9, 38, doi:10.1038/s41699-025-00561-5 (2025)**
16. *Liquid crystalline structuring in dilute suspensions of high aspect ratio clay nanosheets*, O. Trigueiro Neto, S. Rosenfeldt, P.H. Michels-Brito, K.K. Seljelid, A. Akanno, B.T. Ceccato, R.P. Ravindranathan, T.S. Plivelic, L. Michels, J. Breu, K.D. Knudsen & **J.O. Fossum**, Colloid and Polymer Science 303(9), 1769-1778, doi:10.1007/s00396-024-05268-5 (Part of a collection: SI - Synthesis and Characterization of Functional Nanoscale Materials – Special Issue dedicated to the occasion of the 60th birthday of Stephan Förster) (2025)
17. *Macroscopic observation of a first order one-dimensional swelling-deswelling transition in a nanolayered material*, O. Trigueiro Neto, K.H. Olsen, H.H. Wensink, B. Pacáková & **J.O. Fossum**, The European Physical Journal Special Topics 233, 2809-2819 (2024)
18. *Growth kinetics and structure of a colloidal silica-based network: in situ RheoSAXS investigations*, K.K. Seljelid, O. Trigueiro Neto, A.N. Akanno, B.T. Ceccato, R.P. Ravindranathan, N. Azmi, L.P. Cavalcanti, I. Fjelde, K.D. Knudsen & **J.O. Fossum**, The European Physical Journal Special Topics 233, 2757-2773, doi:10.1140/epjs/s11734-024-01250-y (2024)
19. *Conductive water-based graphene suspension for electromagnetic interference shielding via spray coating on SiP module*, A. Bobsin, R.M. Kerber, I.J. Fernandes, S.B. Ferreira, W. Hasenkamp, C.R. Peter, P.H. Michels-Brito, A. Akanno, L. Michels, S. Raaen, **J.O. Fossum**, C.A.M. Moraes, Progress in Organic Coatings 195,108658, doi:10.1016/j.porgcoat.2024.108658 (2024)
20. *Classifying Tensile Loading History of Continuous Carbon Fiber Composites Using X-Ray Scattering and Machine Learning*, A. Sexton, M. Kanters, H. Demchenko, B. Pacáková, **J.O. Fossum**, L. Balzano, and M. Knaapila, Adv. Eng. Mater. 26(2), 2301415, doi:10.1002/adem.202301415 (2024)
21. *Intercalation of CO2 Selected by Type of Interlayer Cation in Dried Synthetic Hectorite*, K.W. Bø Hunvik, K.K. Seljelid, D. Wallacher, A. Kirch, L.P. Cavalcanti, P. Loch, P. Monceyron Røren, P.H. Michels-Brito, R. Droppa Jr., K.D. Knudsen, C.R. Miranda, J. Breu, and **J.O. Fossum**, Langmuir 39, 4895 (2023)
22. *Influence of CO2 on Nanoconfined Water in a Clay Mineral*, K.W. Bø Hunvik, R.J. da Silva Lima, A. Kirch, P. Loch, P. Monceyron Røren, M. Hoffmann Petersen, S. Rudić, V. García Sakai, K.D. Knudsen, C.R. Miranda, J. Breu, **J.O. Fossum** and H.N. Bordallo, Journal of Physical Chemistry C 126, 17243 (2022)
23. ***Large bandgap insulating superior clay nanosheets*, B. Pacáková, P.E. Vullum, A. Kirch, J. Breu, C.R. Miranda & J.O. Fossum, Impact article, MRS Bulletin 47, December 2022, doi:10.1557/s43577-022-00349-8 (2022)**
24. ***Bright, noniridescent structural coloration from clay mineral nanosheet suspensions*, P.H. Michels-Brito, V. Dudko, D. Wagner, P. Markus, G. Papastavrou, L. Michels, J. Breu, J.O. Fossum, Science Advances 8(4), doi:10.1126/sciadv.abl8147 (2022)**
25. *CO2 Adsorption Enhanced by Tuning the Layer Charge in a Clay Mineral*, K.W. Bø Hunvik, P. Loch, D. Wallacher, A. Kirch, L.P. Cavalcanti, M. Rieß, M. Daab, V. Josvanger, S. Grätz, F. Yokaichiya, K.D. Knudsen, C.R. Miranda, J. Breu, **J.O. Fossum**, Langmuir 37, 14491 (2021)
26. *Water Dynamics in Composite Aqueous Suspensions of Cellulose Nanocrystals and a Clay Mineral Studied through Magnetic Resonance Relaxometry*, A. Kumar, C. Cruz, J.L. Figueirinhas, P.J. Sebastião, A.C. Trindade, S.N. Fernandes, M.H. Godinho, and **J.O. Fossum**, J. Phys. Chem. B 125, 12787 (2021)
27. *Exfoliation of carboxymethylcellulose-intercalated layered double hydroxide in water*, G.F. Perotti, J.R. Bortotti, F.S. Lima, L. Michels, E.C. dos Santos, M.A.S. Altoé, G. Grassi, G.J. da Silva, R. Droppa Jr., **J.O. Fossum**, V.R.L. Constantino, Applied Clay Science 205, 106005 (2021)

28. *Controlled Sample Environment for Studying Solid-Gas Interactions by in situ Powder X-ray Diffraction*, P. Monceyron Røren, K.W. Bø Hunvik, V. Josvanger, O.T. Buset and **J.O. Fossum**, Journal of Applied Crystallography 54, 1-5 (2021)
29. *Unmodified Clay Nanosheets at the Air–Water Interface*, P.H. Michels-Brito, A. Malfatti-Gasperini, L. Mayr, X. Puentes-Martinez, R.P. Tenório, D.R. Wagner, K.D. Knudsen, K. Araki, R.G. Oliveira, J. Breu, L.P. Cavalcanti, **J.O. Fossum**, Langmuir 37, 160–170 (2021)
30. *Experimental methods to study clay minerals and perspective applications of Fluorohectorite*, P.H. Michels-Brito, L. Michels, K.W.B. Hunvik, E.C. dos Santos, B. Pacáková, L.P. Cavalcanti, K.D. Knudsen, H.N. Bordallo and **J.O. Fossum**, O.A.J. Materials and Devices 5 (2021), also published as chap No 21, p 601 in Perovskites and other framework structure crystalline materials: new trends and perspectives, doi:10.23647/ca.md20201501
31. *CO2 Capture by Nickel Hydroxide Interstratified in the Nanolayered Space of a Synthetic Clay Mineral*, K.W. Bø Hunvik, P. Loch, L.P. Cavalcanti, K.K. Seljelid, P. Monceyron Røren, S. Rudic, D. Wallacher, A. Kirch, K.D. Knudsen, C.R. Miranda, J. Breu, H.N. Bordallo and **J.O. Fossum**, J. Phys. Chem. C 124, 26222−26231 (2020)
32. *Impact of Thermal History on Water Adsorption in a Synthetic Nanolayered Silicate with Intercalated Li+ or Na+*, L. Michels, C.L.S. da Fonseca, Y. Méheust, M.A.S. Altoé, E.C. dos Santos, G. Grassi, R. Droppa Jr., K.D. Knudsen, L.P. Cavalcanti, K.W.B. Hunvik, **J.O. Fossum**, G.J. da Silva, and H.N. Bordallo, J. Phys. Chem. C 124, 24690−24703 (2020)
33. *Spontaneous Formation of an Ordered Interstratification upon Ni-exchange*, P. Loch, K.W. Bø Hunvik, F. Puchtler, S. Weiß, K.K. Seljelid, P. Monceyron Røren, S. Rudic, S. Raaen, K.D. Knudsen, H.N. Bordallo, **J.O. Fossum**, J. Breu, Applied Clay Science 198, 105831 (2020)
34. *Clay nanolayer encapsulation, evolving from origins of life to future technologies*, **J.O. Fossum**, European Physical Journal Special Topics 229, 2863–2879 (2020)
35. *Photonic Composite Materials from Cellulose Nanorods and Clay Nanolayers*, A.C. Trindade, M. Carreto, G. Helgesen, K.D. Knudsen, F. Puchtler, J. Breu, S. Fernandes, M.H. Godinho, **J.O. Fossum**, European Physical Journal Special Topics 229, 2741–2755 (2020)
36. *Physicochemical characterisation of fluorohectorite: Water dynamics and nanocarrier properties*, S.R. Larsen, L. Michels, Éverton C.dos Santos, M.C. Berg, W.P. Gates, L.P. Aldridge, T. Seydel, J. Ollivier, M.T.F. Telling, **J.O. Fossum**, H.N. Bordallo, Microporous and Mesoporous Materials 306, 110512 (2020)

Earlier peer-reviewed publications (before 2020)

37. *Water vapor diffusive transport in a smectite clay: Cationic control of normal versus anomalous diffusion*, L. Michels, Y. Méheust, M.A.S. Altoé, É.C. dos Santos, H. Hemmen, R. Droppa, Jr., **J.O. Fossum**, and G.J. da Silva, Phys. Rev. E 99, 013102 (2019)
38. *Active structuring of colloids through field-driven self-assembly*, V. Liljeström, C. Chen, P. Dommersnes, **J.O. Fossum**, A.H. Gröschel, Current Opinion in Colloid & Interface Science 40, 25-41 (2019)
39. ***A nano-silicate material with exceptional capacity for CO2 capture and storage at room temperature*, L.P. Cavalcanti, G.N. Kalantzopoulos, J. Eckert, K.D. Knudsen & J.O. Fossum, Scientific Reports 8, 11827 (2018)**
40. *The pH influence on the intercalation of the bioactive agent ciprofloxacin in fluorohectorite*, E.C. dos Santos, W.P. Gates, L. Michels, L. Juranyi, A. Mikkelsen, G.J. da Silva, **J.O. Fossum**, H.N. Bordallo, Applied Clay Science 166, 288 - 298 (2018)
41. *Sample cell for studying liquid interfaces with an in situ electric field using X-ray reflectivity and application to clay particles at oil–oil interfaces*, S.R. Larsen, M. Hansteen, B. Pacáková, K. Theodor, T. Arnold, A.R. Rennie, G. Helgesen, K.D. Knudsen, H.N. Bordallo, **J.O. Fossum** and L.P. Cavalcanti, J. Synchrotron Radiation 25, 915–917 (2018)

42. *A simple way for targeted delivery of an antibiotic: In vitro evaluation of a nanoclaybased composite*, L. Valdes, I. Perez, L.C. de Menorval, E. Altshuler, **J.O. Fossum**, A. Rivera, PLoS ONE 12(11): e0187879, doi:10.1371/journal.pone.0187879 (2017)
43. *Ciprofloxacin intercalated in fluorohectorite clay: Identical pure drug activity and toxicity with higher adsorption and controlled release rates*, E.C. dos Santos, Z. Rozynek, E.L. Hansen, R. Hartmann-Petersen, R.N. Klitgaard, A. Loebner-Olesen, L. Michels, A. Mikkelsen, T.S. Plivelic, H.N. Bordallo, **J.O. Fossum**, RSC Advances 7, 26537-26545 (2017)
44. *Mechanics of Pickering Drops Probed by Electric Field Induced Stress*, A. Mikkelsen, P. Dommersnes, Z. Rozynek, A. Gholamipour-Shirazi, M. da S. Carvalho and **J.O. Fossum** Materials 10, 436 (2017)
45. *Transient deformation dynamics of particle laden droplets in electric field*, A. Mikkelsen, Z. Rozynek, K. Khobaib, P. Dommersnes, **J.O. Fossum**, Colloids and Surfaces A: Physicochemical and Engineering Aspects, doi:10.1016/j.colsurfa.2017.05.010 (2017)
46. ***Transition from glass- to gel-like states in clay at a liquid interface*, A. Gholamipour-Shirazi, M.S. Carvalho, M.F.G. Huila, K. Araki, P. Dommersnes & J.O. Fossum, Scientific Reports 6: 37239, doi:10.1038/srep37239 (2016)**
47. *Electro-hydrodynamic propulsion of counter-rotating Pickering drops*, P. Dommersnes, A. Mikkelsen and **J.O. Fossum**, European Physical Journal Special Topics 225 (4), 699-706, doi:10.1140/epjst/e2016-60090-2 (2016)
48. *Surface structuring of particle laden drops using electric fields*, P. Dommersnes and **J.O. Fossum**, European Physical Journal Special Topics 225 (4), 715-728, doi:10.1140/epjst/e2016-60013-9 (2016)
49. *Controlled microfluidic emulsification of oil in a clay nanofluid: Role of salt for Pickering stabilization*, A. Gholamipour-Shirazi, M.S. Carvalho and J.O. Fossum, European Physical Journal Special Topics 225 (4), 757-756, doi:10.1140/epjst/e2016-60002-0 (2016)
50. *Incorporation of tramadol drug into Li-fluorohectorite clay: A preliminary study of a medical nanofluid*, L. Valdés, D. Hernández, L. Ch. de Ménorval, I. Pérez, E. Altshuler, **J.O. Fossum** and A. Rivera, European Physical Journal Special Topics 225 (4), 767-771, doi:10.1140/epjst/e2016-60090-2 (2016)
51. *Electric-stress-induced Slip Lines in Jammed Particle Monolayers*, A. Mikkelsen, P. Dommersnes, **J.O. Fossum**, Revista Cubana De Física, 33 (1) 50-52 (2016)
52. *Análise da Reflexão 001 da Níquel-Fluorohectorita por Difração de Raios X Síncrotron*, J.S. de Oliveira, M.H. Sousa, L. Michels, **J.O. Fossum**, G.J. da Silva, K.C. Mundim, L. Ribeiro, Rev. Virtual Quim. 8 (2), 493-505, doi:10.5935/1984-6835.20160036 (2016)
53. *Smectite as ciprofloxacin delivery system: Intercalation and temperature-controlled release properties*, A. Rivera, L. Valdés, J. Jiménez, I. Pérez, A. Lam, E. Altshuler, L.C. de Ménorval, **J.O. Fossum**, E.L. Hansen, Z. Rozynek, Applied Clay Science 124-125, 150-156, doi:10.1016/j.clay.2016.02.006 (2016)
54. *Continuous water adsorption states promoted by Ni2+ confined in a synthetic smectite*, M.A.S. Altoé, L. Michels, E.C. dos Santos, R. Droppa Jr, G. Grassi, L. Ribeiro, K.D. Knudsen, H.N. Bordallo, **J.O. Fossum**, G.J. da Silva, Applied Clay Science 123, 83-91, doi:10.1016/j.clay.2016.01.012 (2016)
55. ***Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cation*, L. Michels, J.O. Fossum, Z. Rozynek, H. Hemmen, K. Rustenberg, P.A. Sobas, G.N. Kalantzopoulos, K.D. Knudsen, M. Janek, T.S. Plivelic & G.J. da Silva, Scientific Reports 5: 8775, doi:10.1038/srep08775 (2015)**
56. *Anisotropic clay–polystyrene nanocomposites: Synthesis, characterization and mechanical properties*, H. Mauroy, T.S. Plivelic, J.-P. Suuronen, F.S. Hage, **J.O. Fossum**, K.D. Knudsen, Applied Clay Science 108 19–27, doi:10.1016/j.clay.2015.01.034 (2015)
57. ***Electroformation of Janus and patchy capsules*, Z. Rozynek, A. Mikkelsen, P. Dommersnes & J.O. Fossum, Nature Communications, 5:3945, doi:10.1038/ncomms4945 (2014).**

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INVITED AND CONTRIBUTED TALKS (2002–2026)

1. *Biogas upgrading*, The November Conference 2026 (13th edition, Business Norway), Rio de Janeiro, Brazil, 9–11 November 2026
2. *Architected Clay Materials for Low-Pressure PSA Biogas Upgrading*, Energy Transition Research & Innovation Conference (ETRI 2026), Inova USP, São Paulo, Brazil, 4–6 November 2026
3. *One gallery, two limits: from a remembered spacing to a molecular sieve in clay nanolayers*, LNNano/CNPEM, Campinas, Brazil, 3 November 2026 (invited)
4. *Mechanical coupling in clay lamellar systems*, XXIV B-MRS Meeting, Curitiba, Paraná, Brazil, 27 September – 1 October 2026 (invited)
5. *When swelling destroys order: finite stacking in layered colloids, revealed by SANS and synchrotron SAXS*, 1 I-RUN First Brazilian Neutron User Meeting, IPEN/USP São Paulo, 26–28 January 2026 (invited)
6. *Clay minerals as natural 2D nanomaterials: From basic science to innovation and sustainable applications*, CRCN/NE, Recife, Brazil, 6 October 2025 (invited)

7. *Clay minerals as natural 2D nanomaterials: From basic science to innovation and sustainable applications*, XXIII B-MRS Meeting, Salvador, Bahia, Brazil, 28 September – 2 October 2025 (invited)
8. *Bright, Non-Iridescent Structural Colors from delaminated Ordered Interstratified Clay Nanosheets*, 18th International Clay Conference (ICC), Dublin Ireland, 13–18 July 2025 (invited)
9. Lectures, Geilo PhD School 2025: Complex Matter and AI: Connectivity, Information and Adaption, Geilo, Norway, 10–20 March 2025 (invited)
10. *CO2 capture by clay minerals*, 2nd International Sirius Workshop on Heterogeneous and Hierarchical Materials (H2Mat) at the Sirius synchrotron in Campinas, Brazil, 8 November 2024
11. *Structural coloration from clay minerals*, JMC2024 in Marseille, France, 29 October 2024
12. *Clay minerals as 2D natural nanomaterials for sustainable applications*, University of Twente in Enschede, Netherlands, 21 September 2024 (invited)
13. *Clay minerals as 2D natural nanomaterials for sustainable applications*, University of Bayreuth in Germany, 11 September 2024 (invited)
14. *Liquid crystalline structuring in photonic aqueous suspensions of high aspect ratio clay nanosheets*, ECIS2024 in Copenhagen, Denmark, 3 September 2024
15. *Liquid crystalline structuring in photonic aqueous suspensions of high aspect ratio clay nanosheets*, ILCC2024 in Rio de Janeiro, Brazil, July 2024
16. *Clay minerals as 2D natural nanomaterials for sustainable applications*, ISIS Neutron and Muon Source, UK, on, 22 July 2024 (invited)
17. *Clay minerals as 2D natural nanomaterials for sustainable applications*, PMMH-ESPCI-Paris, France, on, 16 February 2024 (invited)
18. *Clay minerals as 2D natural nanomaterials for sustainable applications*, Max IV Lab User Meeting 2024 in Lund, Sweden. 17 January 2024 (invited)
19. *Clay minerals as 2D natural nanomaterials for sustainable applications*, Harvard University, School of Engineering and Applied Sciences, Cambridge, Massachusetts, USA, 5 December 2023 (invited)
20. *Clay minerals representative of natural nanomaterials for sustainable applications*, invited Friday Physics Colloquium, NTNU, Trondheim, Norway, 17 November 2023 (invited)
21. *Clay minerals as 2D natural nanomaterials for sustainable applications*, Universidade Federal de Pernambuco- UFPE, Recife, Brazil, 13 November 2023 (invited)
22. *Recent developments of clay science for sustainable applications*, ILLUM – escola de ciência, Campinas, Brazil, 1 November 2023 (invited)
23. *Clay minerals as 2D natural nanomaterials for sustainable applications*, Workshop on Mesostructures and Microfluidics, University of Campinas - UNICAMP, Campinas, Brazil, 26 October 2023 (invited)
24. *Liquid–crystalline aqueous suspensions of clay minerals*, CENIMAT, Departamento Ciência dos Materiais, NOVA SCHOOL OF SCIENCE AND TECHNOLOGY | FCT NOVA, Universidade NOVA de Lisboa, Campus de Caparica, Portugal, 17 October 2023 (invited)
25. *Intro to Soft and Complex Matter Lab*, NTNU: Natural nanomaterials for sustainable applications, NTNU NanoLecture, Trondheim, Norway, 12 September 2023 (invited)
26. *Self-wrinkling insulating nanosheets as substrates for wrinkling of graphene, graphene oxide and other 2D materials*, Graphene Week, Gothenburg, Sweden, 4–8 September 2023
27. *Advanced materials science based on clay minerals*, Topical Seminar on Materials Science of Natural Materials How nano-scale structures determine human-scale applications, Nelson Mandela African Institution of Science and Technology (NM-AIST), Arusha, Tanzania, 20 July 2023 (invited)
28. *Pros and cons of 2D materials for structural coloration*, Discussions on Nano and Mesoscopic Optics, DINAMO 2023 in Svolvær, Lofoten Islands, Norway, 11–16 June 2023 (invited)
29. *Clay mineral nanosheets suspended in water give bright and noniridescent structural colors SICT 2023 / PLASMA TECH 2023 / TRIBOLOGY 2023 JOINT CONFERENCES - Lisbon*, Portugal, 26–28 April 2023
30. *From low- to high-tech applications of clay minerals*, Instituto de Física Colloquium, Universidade de São Paulo – USP, Brazil, 8 December 2022 (invited)

31. *CO2 sorption by clay minerals, from nano-to geo-scales*, 5th Interpore Conference of the Brazilian Chapter, online, 1–2 August 2022 (invited)
32. *Some pandemic advances in the materials science of clay minerals: from CO2 induced tight crystalline swelling to structural coloration by giant nematic osmotic swelling*, Colloquium Chemistry and Mechanical Engineering Pontifícia Universidade Católica do Rio de Janeiro, Brasil, 21 June 2022 (invited)
33. *Some pandemic advances in the materials science of clay minerals: from CO2 induced tight crystalline swelling to structural coloration by giant nematic osmotic swelling*, RCGI Colloquium Universidade de São Paulo - USP. RCGI, Brazil, 9 June 2022 (invited)
34. *Active versus driven particle-assembly in microfluidic confinement*, Colloquium Chemical Engineering Unicamp Brazil, Chemical Engineering Unicamp, Campinas, Brazil, 7 June 2022 (invited)
35. *Advanced material science of clay minerals: from capture of carbon dioxide to non-iridescent structural coloration*, session "Electrostatic Manipulation of Fluids and Soft Matter", APS March Meeting, Denver CO, USA, 15–19 March 2021 (invited)
36. *Particle assembly using confined electro-hydrodynamics: Driven versus active assembly*, session "Electrostatic Manipulation of Fluids and Soft Matter", Online. APS March Meeting, Denver CO, USA, 2–6 March 2020 (invited)
37. *Nanofluids for IOR and Tracer Technology*, with I. Fjelde, VII November Conference, RD&I Collaboration between Norway and Brazil (Innovation Norway), Rio de Janeiro, Brazil, 11–13 November 2019
38. *Informal discussion about how fictionalization on the nano-scale is deterministic for properties and behaviors on the macro-scale, and how this can be characterized by means of synchrotron x-ray scattering (SIRIUS) and neutron scattering techniques*, LMMP Group, Mechanical Engineering, Pontifícia Universidade Católica do Rio de Janeiro (PUC.Rio), 29 October 2019 (invited)
39. *How come it is of interest to study pure and applied physics, chemistry and materials science of mud?*, Inorganic Chemistry Group, Pontifícia Universidade Católica do Rio de Janeiro (PUC.Rio), 29 October 2019 (invited)
40. *Active versus driven particle assembly in microfluidic confinement*, II Brazil-Argentine Microfluidics Congress, V Congreso de Microfluídica Argentina, Córdoba Argentina, 22–25 October 2019 (invited)
41. *Nature-inspired materials physics*, 104ª Reunión de la Asociación Física Argentina, Santa Fe Argentina, 30 September – 3 October 2019 (invited)
42. *Clay Matters*, "The Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality", 11–21 March 2019 at Bardøla Høyfjellshotel, Geilo, Norway
43. *Tuning Photonic Properties of Cellulose-Clay Nano Structure*, A.C. Trindade, S. Fernandes, V. Liljeström, M. Daab, J. Breu, M.H. Godinho, **J.O. Fossum**, MRS Fall Meeting 2018, Boston, USA, 26 November 2018
44. *Electric field induced particle assembly on oil drops: Review of electrohydrodynamic and dielectrophoretic effects*, Brazil-Argentina Microfluidics Congress, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), Brazil, 18–20 July 2018 (invited)
45. *Particle decorated drops in electric fields: self-assembly and propulsion (with P. Dommersnes*, A. Mikkelsen, Z. Rozynek), invited PMMH seminar, ESPCI, Paris, France, 13 July 2018 (invited)
46. *Clay Physics*, Institut Charles Sadron, Univ. Strasbourg, France, 26 June 2018 (invited)
47. *Molecular interactions with clay particles*, as part of the discipline "Special Topics in Biochemistry" (NB520) at Instituto de Biologia, Universidade Estadual de Campinas (Unicamp) on, 14 June 2018 (invited)
48. *Clay Physics*, LVMH Recherche (Moët Hennessy Louis Vuitton SE Recherche), St Jean de Braye France, 22 May 2018 (invited)
49. *Electric field controlled self-assembly of heterogeneous colloidal structures: Electrostatic, electrohydrodynamic and dielectrophoretic effects*, Inorganic Chemistry Group, Pontifícia Universidade Católica do Rio de Janeiro (PUC.Rio), 20 December 2017 (invited)

50. *Electric field controlled self-assembly of heterogeneous colloidal structures: Electrostatic, electrohydrodynamic and dielectrophoretic effects*, Department of Chemistry, UNICAMP, Campinas, 7 December 2017 (invited)
51. *Electric field manipulation of clay particles and structures at liquid-liquid interfaces*, on behalf of Paul Dommersnes at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session NT09: Self-Organization from Clay Particles, from Nano to Macro, Granada Spain, 21 July 2017 (invited)
52. *Pickering emulsion stability connected to glass- or gel-like states in clay at drop interfaces*, 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session NT13: Clay Mineral Colloids for Liquid Crystals and Soft Materials, Granada Spain, 20 July 2017
53. *Synthetic smectite fluorohectorite as an innovative drug carrier: Characterization and controlled release study of ciprofloxacin*, on behalf of Everton C. dos Santos at 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session OM02: Drug Delivery Systems based on Layered materials, Granada Spain, 17 July 2017
54. *Soft Nano Science/Technology*, Nelson Mandela African Institute of Science and Technology (NM-AIST), Arusha, Tanzania, 11 July 2017 (invited)
55. *Basic physics of drops/emulsions*, in relation to applications in EOR, cosmetics, foods etc, University of Dar es Salaam (UDSM), Tanzania, 6 July 2017 (invited)
56. *The physics of clay minerals: From the nano-scale to the geo-scale, and everything in between*, University of Dar es Salaam (UDSM), Tanzania, 5 July 2017 (invited)
57. *Nanoscience of Soft Materials*, University of Dar es Salaam (UDSM), Tanzania, 4 July 2017 (invited)
58. *Electrohydrodynamics*, Department of Marine Technology, NTNU, Trondheim, 21 June 2017 (invited)
59. *Electric field controlled self-assembly of heterogeneous colloidal structures: Electrostatic, electrohydrodynamic and dielectrophoretic effects*, School of Chemical Engineering, UNICAMP, Campinas, 4 May 2017 (invited)
60. *Electric field controlled self-assembly of heterogeneous colloidal structures: Electrostatic, electrohydrodynamic and dielectrophoretic effects*, IMRE, Univ. Havana, Cuba, 13 April 2017 (invited)
61. *Clay Physics inspired by Living Matter, and vice versa*, "The Geilo School" 2017: Physics Inspired by Living Matter, 20–30 March 2017 at Bardøla Høyfjellshotel, Geilo, Norway (invited)
62. *Physical phenomena in clays; Overview of X-ray studies and related investigations*, 29th MAX IV Laboratory User Meeting (UM17), Lund, Sweden, 13–15 March 2017 (invited)
63. *Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis*, FLOWING MATTER 2017, 23–27 January 2017, Porto, Portugal
64. *Vapor Transport in a Porous Smectite Clay System—From Normal to Anomalous Diffusion*, 2016 MRS Fall Meeting & Exhibit, Symposium ES6 : Scientific Basis for Nuclear Waste Management, Boston, Massachusetts, USA, 27 November – 2 December 2016
65. *Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis*, Department of Chemistry, Cambridge University, UK, 10 November 2016 (invited)
66. *Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis*, Department of Chemistry, Univ. Paris 6, France, 9 November 2016 (invited)
67. *Intercalation and retention of CO2 in smectite clays*, Sixth Annual Niels Bohr International Academy Workshop on ESS Science (NBIA6): Structure and Dynamics in Confinement, at European Spallation Source, Lund, Sweden, 7–8 November 2016 (invited)
68. *Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis*, Institut Charles Sadron, Univ. Strasbourg, France, 18 October 2016 (invited)
69. *Mechanics and rheology of pickering drops probed by electric field induced stress*, ECIS 2016, the 30th Conference of the European Colloid and Interface Society, La Sapienza, Rome, Italy, 4–9 September 2016

70. *Dynamics of electrically guided self-assembled jammed colloidal shells on leaky dielectric drop interfaces*, session BP1: Interfaces and compartments in soft matter and biophysics, 24 August 2016, at 15th JMC-Condensed Matter Days of the French Physical Society - JMC15, Bordeaux, France, 22–26 August 2016
71. *Vapor transport in a porous smectite clay: From normal to anomalous diffusion*, session MM2: Transport Processes in Permeable Media, 22 August 2016, at 15th JMC-Condensed Matter Days of the French Physical Society – JMC15, Bordeaux, France, 22–26 August 2016 (invited)
72. *Self-assembly of jammed heterogeneous colloidal shells by combining electrohydrodynamics and dielectrophoresis*, Sungkyunkwan University, S-Korea, 13 July 2016 (invited)
73. *Intercalation and Retention of CO2 in Smectite Clays*, Korea Advanced Institute of Science and Technology (KAIST), Daejeon S-Korea, 6 July 2016 (invited)
74. *Electro-hydrodynamic Tank-treading and Cooperative Swimming of Armored Drops*, 15th International Conference on Electrorheological Fluids and Magnetorheological Suspensions (ERMR2016), Incheon, S-Korea, 5 July 2016
75. *Mechanics and Rheology of Pickering Drops Probed by Electric Field Induced Stress*, 15th International Conference on Electrorheological Fluids and Magnetorheological Suspensions (ERMR2016), Incheon, S-Korea, 5 July 2016
76. *Soft and permeable encapsulation of fluid drops*, with P. Dommersnes, Physics Department, IFE, Kjeller, Norway, 27 May 2016 (invited)
77. *Nanofluids for EOR: Physicochemical mechanisms*, IOR/EOR workshop, IRIS/University of Stavanger, Norway, 25 April 2016 (invited)
78. *Clay Physics*, invited Gulliver Seminar, ESPCI-ParisTech, Paris, France, 7 March 2016 (invited)
79. *Intercalation and retention of CO2 in smectite clays*, Geosciences at Univ. Rennes1, France, 3 March 2016 (invited)
80. *Flow of clays*, Clay Colloids in Aqueous Systems - BELBAR conference, Berlin, Germany, 3–4 February 2016 (invited)
81. *Electromagnetic control of colloidal structures*, with P. Dommersnes, Department of Chemistry, Norwegian University of Science and Technology – NTNU, Trondheim, Norway, 10 December 2015 (invited)
82. *Clay Physics*, Aizenberg and Manoharan groups groups, Harvard University, Cambridge Massachusetts, USA, 7 December 2015 (invited)
83. *Mechanics and Rheology of Pickering Films*, 2015 MRS Fall Meeting & Exhibit, Symposium J: Wetting and Soft Electrokinetics, Boston, Massachusetts, USA, 29 November – 4 December 2015
84. *Electro-Hydrodynamic Swimming*, 2015 MRS Fall Meeting & Exhibit, Symposium J: Wetting and Soft Electrokinetics, Boston, Massachusetts, USA, 29 November – 4 December 2015
85. *Intercalation and retention of CO2 in clays*, Norwegian-Brazilian Workshop on Soft and Complex Matter: From Basic Materials Phenomena to Technology, Pontifícia Universidade Católica do Rio de Janeiro, Brazil, 25 November 2015 (organiser)
86. *Clay Science for future technologies: Some examples*, University of Bayreuth (Inorganic Chemistry), 9 November 2015 (invited)
87. *Some "colloidal consequences" of electrohydrodynamics*, University of Bayreuth (Inorganic Chemistry), 9 November 2015 (invited)
88. *Intercalation and retention of CO2 in smectite clays promoted by interlayer cations*, University of Bayreuth (Inorganic Chemistry), 9 November 2015 (invited)
89. *Clay science for future technologies: Some examples*, Department of Materials Technology, NTNU, Trondheim, Norway, 6 November 2015 (invited)
90. *Electro-hydrodynamically controlled structuring of colloidal particles at liquid interfaces*, with P. Dommersnes, International Workshop on Liquid-Liquid Interfaces, Institut Laue-Langevin (ILL), Grenoble, France, 21–23 October 2015

91. *Intercalation and Retention of CO2 by a Clay controlled by Interlayer Cations: An effective(?) and cheap(?) way of capturing CO2*, 28th Annual MAX IV Laboratory User Meeting (UM15) - "Looking back….. & Forward", Lund, Sweden, 21–23 September 2015 (invited)
92. *Intercalation and Retention of CO2 by a Clay controlled by Interlayer Cations: An effective(?) and cheap(?) way of capturing CO2*, International Conference "Material Science in the Age of Sustainability", Havana, Cuba, 29 June – 1 July 2015 (invited)
93. *Electroformation of Janus and patchy colloidal shells as precursors for hollow structures*, International Conference "Material Science in the Age of Sustainability", Havana, Cuba, 29 June – 1 July 2015 (invited)
94. *Some "colloidal consequences" of electrohydrodynamics*, MarchCOMeeting'15-JuneEdition, Havana, Cuba, 24–26 June 2015 (invited)
95. *Intercalation and Retention of CO2 by a Clay controlled by Interlayer Cations: An effective(?) and cheap(?) way of capturing CO2*, during "10th Seminars of Advanced Studies on Molecular Design and Bioinformatics: The Science behind CO2 Capture and Conversion", Havana, Cuba, 23 June 2015 (invited)
96. *Electrodriven colloidal assembly: Patchy and active systems*, with Paul, Dommersnes at Pontifícia Universidade Católica - PUC, Rio de Janeiro Brazil, 1 June 2015 (invited)
97. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, Departamento de Física, Universidade Federal de Pernambuco (UFPE), Recife, Brasil, 21 May 2015 (invited)
98. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, Sungkyunkwan University, S-Korea, 3 April 2015 (invited)
99. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, Gwangju Institute of Science and Technology (GIST), Gwangju, S-Korea, 1 April 2015 (invited)
100. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, Inha University Incheon S-Korea, 30 March 2015 (invited)
101. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, Seoul National University (SNU), Seoul S-Korea, 27 March 2015 (invited)
102. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, Korea Advanced Institute of Science and Technology (KAIST), Daejeon S-Korea, 25 March 2015 (invited)
103. *Electrodriven colloidal assembly: Patchy and active systems*, with Paul, Dommersnes at "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, 16–26 March 2015 at Bardøla Høyfjellshotel, Geilo, Norway (invited)
104. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, Niels Bohr Institute, University of Copenhagen, 6 March 2015 (invited)
105. *Intercalation and Retention of CO2 by a Clay controlled by Interlayer Cations*, Norwegian Synchrotron- and Neutron User Meeting 2015, Sola Strand Hotel, Stavanger, 19–20 January 2015
106. *Some thoughts about an effective(?) and cheap(?) way of capturing CO2*, Colóquios da Pós-Graduação em Química at Departamento de Química Fundamental – UFPE, Recife, Brazil, 10 December 2014 (invited)
107. *Intercalation and Retention of Carbon Dioxide in a Smectite Clay at Near-Ambient Conditions*, 2014 MRS Fall Meeting & Exhibit, Symposium FF Materials as Tools for Sustainability, Boston, Massachusetts, USA, 30 November – 5 December 2014
108. *Self-organization and emergent phenomena in one example soft matter system: Clay*, Brijuni Conference: Self organizing matter and emergence, Brijuni, Croatia, 25–30 August 2014 (invited)
109. *Some thoughts about an effective(?) and cheap(?) way of capturing CO2*, Pontifícia Universidade Católica - PUC, Rio de Janeiro Brazil, 8 August 2014 (invited)

110. *Active structuring of colloidal shells on drops by electric field*, Liquids 2014, 9th Liquid matter Conference, Lisbon, Portugal, 21–25 July 2014
111. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, Physics Faculty, Univ. Barcelona, Spain, 20 June 2014 (invited)
112. *Active structuring of colloidal shells on drops by electric fields*, 4th International Colloids Conference: Surface Design and Engineering, Madrid, Spain, 16 June 2014
113. *Some thoughts about an effective(?) and cheap(?) way of capturing CO2*, Univ. Havana, Cuba, 23 May 2014 (invited)
114. *Active structuring of colloidal particles on drops by electric fields including electroformation of Janus and patchy colloidal shells*, IMRE, Univ. Havana, Cuba, 20 May 2014 (invited)
115. *Structuring of colloidal shells on drops by electric fields*, Chemistry Institute, University of São Paulo - USP, Brazil, 11 March 2014
116. *Active Structuring of Colloidal Microparticles on Liquid Drops*, 2013 MRS Fall Meeting & Exhibit, 1–6 December 2013, Hynes Convention Center, Boston, MA, Symposium WW: Self-Organization and Nanoscale Pattern Formation
117. *Active structuring of colloidal shells on drops by electric fields*, in 9th Ibero-American Workshop on Complex Fluids and 2nd Italian-Brazilian Workshop on Liquid Crystals Maceió - PB, Brazil, 14–18 October 2013
118. *Active structuring of colloidal shells on drops by electric fields*, Physics Institute, University of São Paulo - USP, Brazil, 4 October 2013
119. *Active structuring of colloidal armor on liquid drops, extensions*, in Bi-annual meeting of the Norwegian Physical Society; Bergen, Norway, 7–10 August 2013
120. *Complex Physics in Clays*, 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013 (invited)
121. *Recent observations regarding possible mechanisms responsible for CO2- or drug molecules- vs. H2O-intercalation in smectite clay interlayers*, 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013 (invited)
122. *Why clays? and Recent observations regarding possible mechanisms responsible for CO2- or drug molecules- vs*, H2O- intercalation in smectite clay interlayers at 1st NTNU-PAN workshop on Soft and Complex Matter Physics, Warsaw, Institute of Physical Chemistry, Polish Academy of Sciences, 26 April 2013 (invited)
123. *Intercalation of CO2 or of drugs in smectite clays, and electric field induced self-organized clay structures on droplet surfaces Univ. of Campinas (UNICAMP)*, Biochem. Dep.t, Campinas, Brazil, 17 December 2012 (invited)
124. *Intercalation of CO2 or of drugs in smectite clays, and electric field induced self-organized clay structures on droplet surfaces Centro Nacional de Pesquisa em Energia e Materiais–CNPEM*, Campinas, Brazil, 18 December 2012 (invited)
125. *Droplets and emulsion flow Mini-Workshop on Complex Flows and Turbulence*, 6–7 December 2012, Departamento de Física, Universidade Federal de Pernambuco, Recife, PE, Brazil (invited)
126. *Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at near-ambient Conditions*, 2012 MRS Fall Meeting & Exhibit, 25–30 November 2012, Hynes Convention Center, Boston, MA, Symposium VV: Advanced Materials Exploration with Neutrons and Synchrotron X-Rays
127. *Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at near-ambient Conditions*, IV Intern. Workshop on Layered Materials. UNICAMP; Campinas, Brasil, 26–28 November 2012
128. *Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at Near-Ambient Conditions*, MECC 2012, 6th Mid-European Clay Conference, Průhonice, Czech Republic, 4–9 September 2012

129. *Experimental Studies of Physical Phenomena in Clays: Structures, flows and fluid transport*, Departamento de Física, Universidade Federal de São Carlos, UFSCar – SP, Brazil, 16 April 2012 (invited)
130. *Clay Materials Physics*, Short course at Physics Faculty and IMRE, Univ.Havana, Cuba, 21–22 March 2012 (invited)
131. *Clays in Materials Physics*, International Conference: New materials in the Age of Convergence, Havana, Cuba, 12–16 March 2012 (invited)
132. *Carbon dioxide intercalation in Na-fluorohectorite clay at near-ambient conditions*, American Physical Society March meeting, Focus Session H36: Environment: Green processes, Boston MA, USA, 27 February – 2 March 2012
133. *Use of X-ray scattering methods for studies of physical phenomena in soft materials*, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 15 December 2011 (invited)
134. *Complex Physical Phenomena in Clays: Structures, flows and fluid transport*, I Encontro dos Usuários de Técnicas de Difração da CEM UFABC, Câmpus de Santo André, São Paulo, Brazil, 7–8 December 2011 (invited)
135. *Physical Phenomena in Clays: Structures, flows and fluid transport*, PETROBRAS Research Center (CENPES), 17 October 2011 (invited)
136. *Physical Phenomena in Clays: Structures, flows and fluid transport*, Departamento de Engenharia Civil, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), 11 October 2011 (invited)
137. *CO2 storage in porous media*, Research Council of Norway Conference, Soria Moria Conference Center, Oslo, Norway, 5–6 October 2011 (invited)
138. *Magnetic resonance studies of clays: Examples of what one can learn*, International Workshop on Complex Phenomena in Superconductors and Magnetic Systems, Øystese, Norway, 29 August – 2 September 2011 (invited)
139. *Physical Phenomena in Clays: Structures, flows and fluid transport*, Bio Complexity group, Niels Bohr Institute, Copenhagen, Denmark, 27 June 2011 (invited)
140. *Activities at Lab. for Soft and Complex Matter Studies at Dept. of Physics*, NTNU, 1st Nordic Workshop on Soft Matter Physics, (Nordforsk network), Århus, Denmark, 28 June – 1 July 2011 (invited)
141. *Physical Phenomena in Clays: Structures, flows and fluid transport*, Complex Fluids Group, Instituto de Física, Universidade de São Paulo (USP), São Paulo, 30 May 2011 (invited)
142. *Complex Matters, Symposium for the 70th birthday of*, A.T. Skjeltorp, Norwegian Academy of Sciences, Oslo, Norway, 20 May 2011 (invited)
143. *Flow of Clays*, Adv. Study Inst.: Cooperative Phenomena in Flows, Geilo, Norway, 4–14 April 2011 (invited)
144. *Physical Phenomena in Clays*, AMCS group - Physics Dept., Univ. of Oslo, Norway, 1 April 2011 (invited)
145. *Experimental Studies of Physical Phenomena in Clays in Instability and Turbulence Group*, DSM/IRAMIS/SPEC/ GIT, CEA-Saclay - Paris, France, 23 March 2011 (invited)
146. *Physical Phenomena in Clays*, Department of Mechanical Engineering, Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), Brazil, 4 January 2011 (invited)
147. *Sorption and Migration of CO2 in Porous Media*, CLIMIT Days 2010, Research Council of Norway Conference, Soria Moria Conference Center, Oslo, Norway, 12–13 October 2010 (invited)
148. *Self-Organized Soft Nanostructures in Clays, 150th orbit of Alexander von Humboldt*, in Workshop on Complex Systems, Havana, Cuba, 7–11 June 2010 (invited)
149. *Humidity Transport in a Material of Interconnected Meso- and Nanopores: X-ray Studies of a Model Clay*, Materials Research Society 2009 MRS Fall Meeting, Boston, USA, 30 November – 4 December 2009, Symposium JJ: Multiscale Dynamics in Confining Systems, Paper number JJ4.5, 1 December 2009

150. *Complex Physical Phenomena in a Clay*, 14th International Clay Conference Castellaneta M., Italy, 14–20 June 2009, Session UM3: General topics
151. *The Electro-Rheology of Suspensions of Synthetic Smectites in Oil*, 14th International Clay Conference Castellaneta M., Italy, 14–20 June 2009, Session CE4: Colloids & Rheology
152. *Synchrotron X-ray Scattering from Self-organized Soft Nanostructures in Clays*, Session SSS24 on Synchrotron radiation in soil and geosciences, European Geosciences Union-EGU, General Assembly 2009, Vienna, Austria, 19–24 April 2009
153. *Experimental Studies of Selected Soft Self-organized Nanostructures*, Complex Fluids session at Dynamics of Soft Matter (DSM) Workshop, Boston, MA, USA, 4–6 December 2008
154. *Nano-Scale Hydration of a Model Clay: NMR Studies*, Materials Research Society 2008 MRS Fall Meeting, 1–5 December 2008, Boston, MA, USA, Symposium PP: Solid-State Chemistry of Inorganic Materials VII, Paper number PP7.10, 3 December 2008
155. *Examples of Self-organized Soft Nanostructures*, XXVI Encontro de Físicos do Norte e Nordeste (XXVI EFNNE), Mar Hotel, Recife, Brasil, 5–7 November 2008 (invited)
156. *Nano-scale hydration of a model clay: NMR studies*, VII Encontro da SBPMat (Sociedade Brasileira de Pesquisa em Materiais), Guaruja-SP, Brasil, 28 September – 2 October 2008
157. *Water vapor transport in and hydration of, a model nano-clay: X-ray studies*, VII Encontro da SBPMat (Sociedade Brasileira de Pesq. em Materiais), Guaruja-SP, Brasil, 28 September – 2 October 2008
158. *Synchrotron X- ray Scattering from Selected Self- organized Soft Nanostructures*, 6th Int. Conf. on Synchrotron Radiation in Materials Science, (SRMS-6), Campinas, SP, Brazil, 20–23 July 2008
159. *Electrorheology of Clay Particles suspended in Oil*, IV Brazilian Conference on Rheology, Rio de Janeiro, Brazil, 2–4 July 2008
160. *Self-assembly from clay nanoparticles*, Universidade Federal de Campina Grande (UFCG), Ciência e Engenharia de Materiais, Campina Grande, Paraíba, Brazil, 18 December 2007 (invited)
161. *A Search for Possible Universal Anomalous Transport of Water in Meso-/Nano- Porous Materials*, Materials Research Society 2007 MRS Fall Meeting, Boston, MA, USA, Symposium V: Materials Science of Water Purification, Paper number V4.4, 28 November 2007
162. *Transitions in Selected Selfassembled Nanostructured Soft Materials*, Materials Research Society 2007 MRS Fall Meeting, Boston, MA, USA, Symposium D: Materials in Transition--Insights from Synchrotron and Neutron Sources, Paper number D5.1, 27 November 2007 (invited)
163. *Spontaneous and Guided Selfassembly of Clay Nanoparticles*, Materials Research Society 2007 MRS Fall Meeting, Boston, MA, USA, Symposium HH: Nanophase and Nanocomposite Materials V, Paper number HH2.6, 26 November 2007
164. *Spontaneous and Guided Selfassembly of Nanoparticles*, VI Encontro da SBPMat (Sociedade Brasileira de Pesquisa em Materiais), Natal-RN, Brasil, 28 October – 1 November 2007
165. *From nanoparticles to macroscopic complex physical phenomena*, Annual meeting of the Norwegian Physical Society, Tromsø, Norway, 8–10 August 2007
166. *Self-assembly from clay nano-platelets*, Euroclay2007 Aveiro, Portugal, 22–27 July 2007
167. *Self-assembly of nano-particles*, Universidade Federal de Pernambuco (UFPE), Departamento de Física, Recife, Brazil, 13 July 2007 (invited)
168. *Self-assembly of nano-particles: From simple ingredients to complex phenomena*, Research Council of Norway Nanomat Conference, Bergen, Norway,5–7 June 2007
169. *Electric Polarization and Chain Formation of Nano-Layered Particles*, Norwegian Synchrotron User meeting, Bergen, Norway, 4–5 June 2007
170. *Transport of fluids in nanoporous media*, Annual meeting of the Condensed Matter and Atomic Physics Division of the Norwegian Physical Society, Bergen, Norway, 5 June 2007
171. *From Simple Ingredients to Complex Phenomena: Self-assembly of Nanoparticles*, Universidade de Brasília, UnB (University of Brasília) Instituto de Física (Institute of Physics) Brasília, Brazil, 3 April 2007 (invited)

172. *From Simple Ingredients to Complex Phenomena: Self-assembly of Nanoparticles*, Brazilian National Institute for Space Research– INPE - Associate Laboratory for Computing and Applied Mathematics – LAC, São José dos Campos — SP, Brazil, 23 March 2007 (invited)
173. *From Simple Ingredients to Complex Phenomena: Self-assembly of Nanoparticles*, Workshop on "Dynamics of Complex Systems", Natal, Brazil, 15 March 2007 (invited)
174. *Synchrotron X-ray scattering studies of self-assembly of nano-layered particles*, Miniworkshop on "X-ray study of nanostructures", Gwangju Institute of Technology, GIST, Gwangju, Korea, 26 February 2007 (invited)
175. *Electric Polarization and Chain Formation of Nano-Layered Particles*, Fourth Scandinavian Workshop on Scattering from Soft Matter, MAX-lab, Lund, Sweden,1 February 2007 (invited)
176. *How do Complex Phenomena Emerge from Simple Ingredients? Complex Matter Science by Example: Spontaneous and Guided Self-assembly of Nanoparticles*, Norwegian University of Science and Technology, Department of Physics Colloquium, 19 January 2007 (invited)
177. *Complex Physical Phenomena in Nanolayered Silicates (Clays)*, Workshop on Neutron and X-ray Scattering for the Structures and Dynamics of Nanoscale Materials, KAIST, Daejeon, Korea, 7–8 December 2006 (invited)
178. *Complex Physical Phenomena in Clays: Spontaneous and Guided Selfassembly of Clay Nanolayered Particles studied by Synchrotrons and Microscopes*, Massachusetts Institute of Technology (MIT), Department of Earth, Atmospheric and Planetary Sciences, Dan Rothman Group, 30 November 2006 (invited)
179. *Nanolayered Silicates (Clays) as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, Veeco Scandinavian SPM Conference and Users Meeting 2006, Chalmers University, Göteborg, Sweden, 15 November 2006 (invited)
180. *Spontaneous and guided self-assembly of clay nanoplatelets*, Universidade Federal de Pernambuco (UFPE), Dept. of Physics, Mário Engelsberg Group, Recife, Brazil, 27 July 2006
181. *Spontaneous and guided self-assembly of clay nanoplatelets*, Postech, Department of Physics, Pohang, South Korea, 5 July 2006 (invited)
182. *Spontaneous and guided self-assembly of clay nanoplatelets, KAIST, Korea Advanced Institute of Science and Technology*, S.-M. Choi and Mahn Won Kim groups, South Korea, 4 July 2006 (invited)
183. *Phase separation and orientational ordering in aqueous suspensions of fluoro-hectorite clay*, Groupe francais des argiles GFA - Clay Min. Society CMS Clay Conference, Ile d'Oleron, (France) June 2006
184. *Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, University of Utrecht, Netherlands, Department of Geochemistry, February 2006 (invited)
185. *Intercalation-enhanced electric polarization and chain formation of nano-layered clay platelets in oil*, 13th International Conference on Clays, Tokyo (Japan), August 2005
186. *Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, Universidade Federal de Pernambuco (UFPE), Departments of Physics and Chemistry, Recife, Brazil, July 2005 (invited)
187. *Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, Universidade João Pessoa, Department of Physics, Paraíba, Brazil, July 2005 (invited)
188. *From nanotechnology to applied geology, are there any links?*, Research Council of Norway, NANOMAT-Birkeland Conference, 02-03/06 2005 in Trondheim, Norway
189. *Nanolayered Silicates (Clays) as Examples of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, XXVIII Encontro Nacional de Física da Matéria Condensada, 10–14 May 2005 Santos, SP, Brazil, May 2005 (invited)
190. *Complex Interconnected Materials: Networks and Processes*, NATO ASI on Dynamics of Complex Interconnected Biosensor Systems: Networks and Bioprocesses, Geilo, Norway, April 2005 (invited)

191. *Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, University of Hawaii, Department of Physics, Klaus Sattler Group, Honolulu, USA, October 2004 (invited)
192. *Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, Gwangju Institute of Technology, GIST, Department of Materials Science, South Korea, October 2004 (invited)
193. *Physics, Physicists and Nanotechnology*, on behalf of Norwegian Physical Society, Research Council of Norway - NANOMAT conference, Soria-Moria, Oslo, Norway, 3–4 June 2004 (invited)
194. *Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, ESPCI, Paris, France, 11 March 2004
195. *Clays as Example of Soft and Complex Matter: From Nano to Macro*, Institut Non-Lineaire de Nice, France, 27 February 2004 (invited)
196. *Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, LNLS, Campinas, Brazil, March 2004 (invited)
197. *Clays as Example of Soft and Complex Matter: From Nano to Macro using Synchrotrons and Microscopes*, University of Brasília, Department of Physics, Brazil, October 2003 (invited)
198. *Soft and Complex Matter: From Nano to Macro*, Annual meeting of the Norwegian Physical Society, Sundvollen, Norway, 9–12 August 2003 (invited)
199. *Clays: Nano physics and Macro Petroleum Physics*, Workshop on "Petroleum Related Science and Technology", Brasília, Brazil, July 2002 (invited)
200. *Structure and dynamics of water intercalation in layered silicates*, 2nd Norwegian Synchrotron User Meeting, Sola, Norway, 7 June 2002
201. *Self-affinity and crossover of a clay deposit*, 27th General Assembly of the European Geophysical Society, Nice France, 22–26 April 2002 (invited)
202. *Gravity dispersed clay colloids: Synchrotron x-ray scattering studies and visual observations of orientational order in Na-fluorohectorite suspensions*, 27th General Assembly of the European Geophysical Society, Nice, France, 22–26 April 2002

CONFERENCE CONTRIBUTIONS BY CO-WORKERS AND STUDENTS (TALKS AND POSTERS, 2001–2025)

1. *Clays from the point of view of condensed matter physicist*. B. Pacáková, **J.O. Fossum**, J. Breu, A. Kirch, C.R. Miranda, D. Zakutna, P.E. Vullum. Talk. 11th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 25–26 September 2025.
2. *Measuring Bending Rigidity and Compression Resistance in Pickering Layers*. N. Azizi, **J.O. Fossum**, P.G. Dommersnes. Talk. 11th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 25–26 September 2025.
3. *Naturally Occurring Wide Band Gap 2D Semiconductor with Antiferromagnetic Ground State*. B. Pacáková, **J.O. Fossum**. Talk. 2025 IEEE 15th International Conference on Nanomaterials: Applications & Properties (NAP-2025), Bratislava, Slovakia, 7–12 September 2025.
4. *High capture capacity of CO_2 in a Nickel–$Ti_3C_2T_x$ MXene–fluorohectorite clay heterostructure*. B. Pacáková, A. Thakur, N. Chandran B.S., N. Heymans, H. Demchenko, A.H. Sexton, G. De Weireld, B. Anasori, **J.O. Fossum**. Poster. 2025 IEEE 15th International Conference on Nanomaterials: Applications & Properties (NAP-2025), Bratislava, Slovakia, 7–12 September 2025.
5. *Naturally occurring 2D semiconductor with antiferromagnetic ground state*. B. Pacáková, **J.O. Fossum**. Talk. 18th International Clay Conference, Dublin, Ireland, 13–18 July 2025.
6. *Nitrogen-doped graphene in the interlayers of a nanolayered silicate for sustainable upscaled energy applications*. B. Pacáková, M. Matejdes, K. Thangaian, H. Demchenko, D. Wagner, L. Michels, P.H. Michels-Brito, M.V. Blanco, K. Araki, S. Raaen, J. Breu, **J.O. Fossum**. Poster. 18th International Clay Conference, Dublin, Ireland, 13–18 July 2025.

7. *Electric Field-Induced Assembly of Clay Particles at the Water-Oil Interface*. N. Azizi, **J.O. Fossum**, P.G. Dommersnes. Poster. 3rd Edible Soft Matter Conference (ESM 2025), Rennes, France, 7–10 July 2025.
8. *Electrohydrodynamic Response of Clay-Stabilized Pickering Droplets in Castor Oil*. N. Azizi, **J.O. Fossum**. Poster. 11th International Conference on Food Chemistry & Technology (FCT-2025), Rome, Italy, 15–17 October 2025.
9. *Moringa protein-based Pickering emulsions: Formulation of Nutritious Food Spread*. N. Azmi, **J.O. Fossum**, A.R. Rennie, A.N. Akanno. Poster. Aalto PICKFOOD Microscopy Course, Espoo, Finland, 2–5 December 2024.
10. *ElectroHydroDynamics for assembly of a dense chain of droplets*. B.T. Ceccato, A.N. Akanno, P.G. Dommersnes, R.L. da Cunha, L.G. de la Torre, **J.O. Fossum**. Poster. Aalto PICKFOOD Microscopy Course, Espoo, Finland, 2–5 December 2024.
11. *Carbon Nanotubes and Graphene Flakes Grown Synchronously in the Confined 2D Nano-space of a Layered Silicate for Advanced Electronics and Battery Applications*. B. Pacáková, M. Matejdes, D. Wagner, K.K. Seljelid, L. Michels, S. Raaen, J. Breu, **J.O. Fossum**. Poster. Quantum Spintronics 2024 (QuSpin), Trondheim, Norway, 5–7 June 2024.
12. *Natural vermiculite clay – scale-up material for 2D heterostructures*. B. Pacáková, B. Lahtinen-Dahl, A. Kirch, H. Demchenko, V. Osmundsen, C.A. Fuller, D. Chernyshov, D. Zakutna, C.R. Miranda, P.E. Vullum, **J.O. Fossum**. Poster. Graphene Week 2024, Prague, Czech Republic, 14–18 October 2024.
13. *Photonic range liquid crystalline structuring of clay nanosheet suspensions: Domains and wall effects*. Y. Yu, B. Pacáková, O. Trigueiro Neto, **J.O. Fossum**. Talk. 10th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 27–28 September 2024.
14. *Electrohydrodynamics of non-aqueous food-grade droplets*. B.T. Ceccato, A.N. Akanno, P.G. Dommersnes, R.L. da Cunha, L.G. de la Torre, **J.O. Fossum**. Talk. 10th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 27–28 September 2024.
15. *Moringa protein-based Pickering emulsions: Formulation of Nutritious Food Spread*. N. Azmi, A.N. Akanno, A.R. Rennie, **J.O. Fossum**. Talk. 10th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 27–28 September 2024.
16. *Measurement of Bending Stiffness of Pickering Sheets*. N. Azizi, **J.O. Fossum**, P.G. Dommersnes, S. Rathod, J. Timonen. Talk. 10th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 27–28 September 2024 (presented 27 September).
17. *Small-angle X-ray scattering to probe protein-stabilized emulsions*. R.P. Ravindranathan, M.P. Knaapila, **J.O. Fossum**, K.D. Knudsen. Talk. 10th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 27–28 September 2024.
18. *E. coli bacteria in motion in clay environments*. A.L. Guen, A.N. Akanno, **J.O. Fossum**, E. Clément. Talk. 10th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 27–28 September 2024.
19. *Moringa protein-based Pickering emulsions: Formulation of Nutritious Food Spread*. N. Azmi, **J.O. Fossum**, A.R. Rennie, A.N. Akanno. Poster. 38th Conference of the European Colloid & Interface Society, Copenhagen, Denmark, 1–6 September 2024.
20. *Moringa oleifera proteins as Pickering stabilizers in food emulsions*. N. Azmi, **J.O. Fossum**, A.N. Akanno. Poster. 19th Food Colloids Conference, Thessaloniki, Greece, 14–18 April 2024.
21. *Measurement of Bending Stiffness of Pickering Layers*. N. Azizi, S. Rathod, J. Timonen, **J.O. Fossum**, P.G. Dommersnes. Poster. PICKFOOD Microscopy Workshop, Aalto University, Espoo, Finland, 2–5 December 2024.
22. *Structural Coloration in Water Droplets Containing Suspended Clay Mineral Nanosheets*. Y. Yu, P.H. Michels-Brito, **J.O. Fossum**. Poster. MRS Fall Meeting 2023, Boston, USA, 26 November – 1 December 2023.
23. *Moringa oleifera proteins as Pickering stabilizers: From nanostructures to rheology*. N. Azmi, **J.O. Fossum**, A.R. Rennie, M.P. Knaapila, A.N. Akanno. Poster. MRS Fall Meeting 2023, Boston, USA, 26 November – 1 December 2023.

24. *Electrohydrodynamics for efficient droplet coalescence in food-grade non-aqueous Pickering emulsions*. B.T. Ceccato, N. Azmi, A.N. Akanno, P.G. Dommersnes, R.L. da Cunha, L.G. de la Torre, **J.O. Fossum**. Poster. MRS Fall Meeting 2023, Boston, USA, 26 November – 1 December 2023.
25. *Multiple Effects of Electrohydrodynamics in Food-Grade Non-Aqueous Moringa Pickering Emulsions*. B.T. Ceccato, N. Azmi, A.N. Akanno, P.G. Dommersnes, R.L. da Cunha, L.G. de la Torre, **J.O. Fossum**. Poster. III International Symposium on Moringa, Aracaju, Sergipe, Brazil, 8–10 November 2023.
26. *Moringa oleifera proteins in Pickering emulsions*. N. Azmi, **J.O. Fossum**, A.R. Rennie, M.P. Knaapila. Talk. III International Symposium on Moringa, Aracaju, Sergipe, Brazil, 8–10 November 2023.
27. *Electrohydrodynamic Process in Non-Aqueous Pickering Emulsion*. B.T. Ceccato, A.N. Akanno, P.G. Dommersnes, R.L. da Cunha, L.G. de la Torre, **J.O. Fossum**. Poster. Workshop on Mesostructures and Microfluidics, Campinas, Brazil, 26–27 October 2023.
28. *Self-wrinkling insulating nanosheets as substrates for wrinkling of graphene, graphene oxide and other 2D materials*. B. Pacáková, M. Matejdes, P.H. Michels-Brito, J. Breu, **J.O. Fossum**. Talk. Graphene Week 2023, Gothenburg, Sweden, 4–8 September 2023.
29. *Bulk Self-Assembly of Hybrid GO-clay Nanosheets*. P.H. Michels-Brito, B. Pacáková, M. Bygdas, V. Osmundsen, J. Breu, **J.O. Fossum**. Poster. Graphene Week 2023, Gothenburg, Sweden, 4–8 September 2023.
30. *Carbon Nanotubes and Graphene Flakes Grown Synchronously in the Confined 2D Nanospace of a Layered Silicate*. B. Pacáková, M. Matejdes, D. Wagner, P.H. Michels-Brito, K.K. Seljelid, L. Michels, J.W. Wells, S. Raaen, J. Breu, **J.O. Fossum**. Poster. Graphene Week 2023, Gothenburg, Sweden, 4–8 September 2023.
31. *Buckling of Pickering Layers*. N. Azizi, **J.O. Fossum**, P.G. Dommersnes. Talk. 9th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 15–16 September 2023.
32. *Structural coloration in water droplets containing suspended clay mineral nanosheets*. Y. Yu, **J.O. Fossum**, P.H. Michels-Brito. Talk. 9th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 15–16 September 2023.
33. *Moringa Oleifera Proteins as Pickering Stabilizers*. N. Azmi, **J.O. Fossum**, A.R. Rennie, M.P. Knaapila, A.N. Akanno. Talk. 9th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 15–16 September 2023.
34. *2D world in the Softcom lab – graphene, clay and beyond*. B. Pacáková, M. Matejdes, A. Kirch, C.R. Miranda, A. Thakur, N. Chandran B.S., B. Anasori, P.H. Michels-Brito, P.E. Vullum, L. Michels, **J.O. Fossum**. Talk. 9th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 15–16 September 2023.
35. *Bacteria motility in Laponite suspensions*. A.N. Akanno, **J.O. Fossum**, E. Clément, R. Baillou. Talk. 9th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 15–16 September 2023.
36. *Large Band Gap of Insulator Clay Nanosheets*. B. Pacáková, P.E. Vullum, J. Breu, **J.O. Fossum**. Poster. Euroclay 2023, Bari, Italy, 24–27 July 2023.
37. *Synchronous Synthesis of Nitrogen-Doped Graphene and Carbon Nanotubes in a Nanolayered Silicate*. B. Pacáková, M. Matejdes, D. Wagner, P.H. Michels-Brito, K.K. Seljelid, L. Michels, J.W. Wells, S. Raaen, J. Breu, **J.O. Fossum**. Poster. Euroclay 2023, Bari, Italy, 24–27 July 2023.
38. *Pickering Droplets: Formation, Deformation and Rheology*. N. Azizi, **J.O. Fossum**, P.G. Dommersnes. Poster. Geilo School 2023 — The Physics of Evolving Matter: Connectivity, Communication and Growth, Geilo, Norway, 13–23 March 2023.
39. *Magnetic response of nematic suspensions of clay nanosheets*. Y. Yu, P.H. Michels-Brito, B. Pacáková, L. Michels, S. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Poster. Geilo School 2023 — The Physics of Evolving Matter: Connectivity, Communication and Growth, Geilo, Norway, 13–23 March 2023.
40. *Locomotion of bacteria through Soft Matter*. A.N. Akanno, S. Meunier, E. Clément, **J.O. Fossum**. Poster. Geilo School 2023 — The Physics of Evolving Matter: Connectivity, Communication and Growth, Geilo, Norway, 13–23 March 2023.

41. *CO_2 intercalation in cation exchanged natural and synthetic clay minerals*. K.K. Seljelid, P.H. Michels-Brito, S. Omdahl, T. Nordvik, K.D. Knudsen, J. Breu, **J.O. Fossum**. Poster. Geilo School 2023 — The Physics of Evolving Matter: Connectivity, Communication and Growth, Geilo, Norway, 13–23 March 2023.
42. *Self-Wrinkling Insulating Nanosheets as Substrates for Wrinkling of Graphene, Graphene Oxide and Other 2D Materials*. B. Pacáková, P.H. Michels-Brito, D. Wagner, S. Raaen, J. Breu, **J.O. Fossum**. Poster. Geilo School 2023 — The Physics of Evolving Matter: Connectivity, Communication and Growth, Geilo, Norway, 13–23 March 2023.
43. *Electric-Induced Oil-in-Oil Pickering Emulsion Formation*. B.T. Ceccato, A.N. Akanno, P.G. Dommersnes, R.L. da Cunha, L.G. de la Torre, **J.O. Fossum**. Poster. Geilo School 2023 — The Physics of Evolving Matter: Connectivity, Communication and Growth, Geilo, Norway, 13–23 March 2023.
44. *Nematic suspensions of clay nanosheets: Structural coloration and USAXS*. P.H. Michels-Brito & **J.O. Fossum**. Talk. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023 (presented 17 January).
45. *CO_2 intercalation in clay minerals*. K.K. Seljelid, **J.O. Fossum**. Talk. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023 (presented 18 January).
46. *Edible oil-in-oil Pickering emulsions for food applications*. B.T. Ceccato, A.N. Akanno, P.G. Dommersnes, R.L. da Cunha, L.G. de la Torre, **J.O. Fossum**. Poster. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023.
47. *Locomotion of bacteria through soft matter*. A.N. Akanno, S. Meunier, E. Clément, **J.O. Fossum**. Poster. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023.
48. *Investigating swelling behavior of Sodium Fluorohectorite by USAXS and Optical Microscopy*. O. Trigueiro Neto, **J.O. Fossum**. Poster. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023.
49. *CO_2 intercalation in clay minerals: X-ray diffraction observations*. S. Omdahl, **J.O. Fossum**. Poster. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023.
50. *Development of conductive inks of metallic particles and graphene dispersions for applications in flexible electronics and electromagnetic shielding*. A. Bobsin, **J.O. Fossum**. Poster. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023.
51. *Monitoring Lifetime of Thermoplastic Composites by Combining Analytics and Machine Learning*. A.H. Sexton, M.P. Knaapila, **J.O. Fossum**, Ø.G. Martinsen. Poster. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023.
52. *Carbon Nanotubes and Graphene Flakes Grown Synchronously in Confined Space of Layered Silicate*. B. Pacáková, M. Matejdes, D. Wagner, P.H. Michels-Brito, K.K. Seljelid, L. Michels, J.W. Wells, S. Raaen, J. Breu, **J.O. Fossum**. Poster. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023.
53. *Spontaneous Wrapping of a Droplet with Clay Nanosheets*. Y. Yu, **J.O. Fossum**. Poster. 19th Nordic Workshop on Scattering from Soft Matter (NSSM-2023), Trondheim, Norway, 17–18 January 2023.
54. *Pickering Droplets: Formation, and Surface Rheology*. N. Azizi, **J.O. Fossum**, P.G. Dommersnes. Poster. International Microfluidics Workshop, Chalmers University of Technology, Gothenburg, Sweden, 23–25 May 2023.
55. *Optimizing Processing of Plant Derived Pickering Food Emulsions*. N. Azmi, **J.O. Fossum**. Talk. International Microfluidics Workshop, Chalmers University of Technology, Gothenburg, Sweden, 23–25 May 2023.
56. *Electrohydrodynamic Process in Oil-in-Oil Pickering Emulsion*. B.T. Ceccato, A.N. Akanno, P.G. Dommersnes, R.L. da Cunha, L.G. de la Torre, **J.O. Fossum**. Poster. International Microfluidics Workshop, Chalmers University of Technology, Gothenburg, Sweden, 23–25 May 2023.

57. *Classifying tensile loading history of carbon fiber composites using wide-angle X-ray scattering and machine learning*. A.H. Sexton, M.P. Knaapila, L. Balzano, H. Demchenko, B. Pacáková, M. Kanters, **J.O. Fossum**. Poster. DPI Performance Polymers Programme Review Meeting, Eindhoven, Netherlands, 19–20 June 2023.
58. *Self-Wrinkling Insulating Nanosheets as Substrates for Wrinkling of Graphene, Graphene Oxide and Other 2D Materials*. B. Pacáková, P.H. Michels-Brito, D. Wagner, S. Raaen, J. Breu, **J.O. Fossum**. Poster. MRS Fall Meeting 2022, Boston, USA, 29 November – 2 December 2022.
59. *2D Magnetic Nanosheets in Aqueous Suspension*. P.H. Michels-Brito, B. Pacáková, L. Michels, S.H. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Poster. MRS Fall Meeting 2022, Boston, USA, 29 November – 2 December 2022.
60. *Carbon Nanotubes and Graphene Flakes Grown Synchronously in the Confined 2D Nanospace of a Layered Silicate*. B. Pacáková, M. Matejdes, D. Wagner, P.H. Michels-Brito, K.K. Seljelid, L. Michels, J.W. Wells, S. Raaen, J. Breu, **J.O. Fossum**. Poster. MRS Fall Meeting 2022, Boston, USA, 29 November – 2 December 2022.
61. *Bulk Self-Assembly of Hybrid GO-clay Nanosheets*. P.H. Michels-Brito, M. Bygdas, B. Pacáková, A.N. Akanno, V. Osmundsen, J. Breu, **J.O. Fossum**. Poster. MRS Fall Meeting 2022, Boston, USA, 29 November – 2 December 2022.
62. *Magnetic Janus Clay Nanosheets*. P.H. Michels-Brito, B. Pacáková, L. Michels, S.H. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Talk. 8th Annual International Workshop on soft and Complex Matter, Norwegian Academy of Science and Letters – DNVA, Oslo, Norway, 7–8 October 2022.
63. *Magnetic properties of natural vermiculite clay*. B. Pacáková, B. Lahtinen-Dahl, H. Demchenko, P.H. Michels-Brito, **J.O. Fossum**. Talk. 8th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters – DNVA, Oslo, Norway, 7–8 October 2022.
64. *Self-wrinkling large band-gap insulating nanosheets for graphene sensor applications*. P.H. Michels-Brito, B. Pacáková, J. Breu, P. Dommersnes, **J.O. Fossum**. Talk. 8th Annual International Workshop on Soft and Complex Matter, Norwegian Academy of Science and Letters – DNVA, Oslo, Norway, 7–8 October 2022.
65. *Magnetic response of Janus clay nanosheets*. Y. Yu, P.H. Michels-Brito, B. Pacáková, L. Michels, S. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Talk. 8th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 7–8 October 2022.
66. *USAXS and optical microscopy studies to investigate swelling and delamination of high aspect ratio clay nanosheets suspended in saline solutions*. O. Trigueiro Neto, K. Olsen, P.H. Michels-Brito, T.S. Plivelic, L. Michels, J. Breu, **J.O. Fossum**. Talk. 8th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 7–8 October 2022.
67. *Development of conductive paints of metallic particles and graphene dispersions for applications in flexible electronics and electromagnetic shielding*. A. Bobsin, T. Rodrigues, I. Fernandes, S. Ferreira, C. Peter, W. Hasenkamp, C. Moraes, A. Akanno, P.H. Michels-Brito, L. Michels, **J.O. Fossum**. Talk. 8th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 7–8 October 2022.
68. *Oil-in-oil (O/O) Pickering emulsions for food applications*. B.T. Ceccato, R.L. da Cunha, A. Akanno, **J.O. Fossum**. Talk. 8th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 7–8 October 2022.
69. *Monitoring lifetime of thermoplastic composites by combining analytics and machine learning*. A.H. Sexton, M.P. Knaapila, **J.O. Fossum**, Ø.G. Martinsen. Talk. 8th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 7–8 October 2022.
70. *Colloidal nature of clay suspensions and bacterial motility*. A. Akanno, S. Meunier, E. Clément, **J.O. Fossum**. Talk. 8th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 7–8 October 2022.
71. *CO2 intercalation in clay minerals*. K.K. Seljelid, K.W. Bø Hunvik, L. Cavalcanti, M. Riess, P. Loch, K.K. Seljelid, V. Josvanger, P.M. Røren, D. Wallacher, R.D. Droppa, B. Pacáková, P.H.M. Brito, K.D. Knudsen, J. Breu, **J.O. Fossum**. Talk. SESSION 12a Soft Matter & Self Assembly 2: SAS2022, Campinas, Brazil, 11–16 September 2022.

72. *GIXOS Studies of Clay Nanosheets at the Air-Water Interface*. P.H. Michels-Brito, A.M. Gasperini, X. Puentes-Martinez, L.P. Cavalcanti, J. Breu, K. Araki, K.D. Knudsen, **J.O. Fossum**. Poster. SAS 2022, Campinas, Brazil, 11–16 September 2022.
73. *SAXS Studies of Aqueous suspensions of Magnetic Janus Clay Nanosheets*. P.H. Michels-Brito, B. Pacáková, L. Michels, S.H. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Poster. SAS 2022, Campinas, Brazil, 11–16 September 2022.
74. *Gelation Dynamics of a Silica Solution*. K.K. Seljelid, O.T. Neto, L. Cavalcanti, K.D. Knudsen, **J.O. Fossum**. Poster. SAS2022, Campinas, Brazil, 11–16 September 2022.
75. *Bright, non-iridescent structural coloration from nematic liquid crystalline of clay nanosheets suspensions*. P.H. Michels-Brito, V. Dudko, D. Wagner, P. Markus, G. Papastavrou, L. Michels, J. Breu, **J.O. Fossum**. Talk. 8th International Liquid Crystal Conference (ILCC), Lisbon, Portugal, 24–29 July 2022.
76. *USAXS study of high aspect ratio clay nanosheets suspended in saline solution: Nematics in the photonic range*. O. Trigueiro Neto, P.H. Michels-Brito, T. Plivelic, J. Breu, B. Pacáková, L. Michels, L. Cavalcanti, K.D. Knudsen, **J.O. Fossum**. Poster. 8th International Liquid Crystal Conference (ILCC), Lisbon, Portugal, 24–29 July 2022.
77. *Magnetic response of nematic suspensions of clay nanosheets*. Y. Yu, B. Pacáková, P.H. Michels-Brito, L. Michels, S.H. Toma, K. Araki, J. Breu, K. Knudsen, **J.O. Fossum**. Poster. 8th International Liquid Crystal Conference (ILCC), Lisbon, Portugal, 24–29 July 2022.
78. *A Photonic Composite Material composed from Cellulose Nano Rods and Exfoliated Clays*. A.C. Trindade, M. Carreto, S. Fernandes, M.H. Godinho, **J.O. Fossum**. Poster. 8th International Liquid Crystal Conference (ILCC), Lisbon, Portugal, 24–29 July 2022.
79. *Advanced physical properties of natural vermiculite clay*. B. Pacáková, B. Lahtinen-Dahl, H. Demchenko, P.H. Michels-Brito, S. Raaen, **J.O. Fossum**. Poster. Virtual MRS Spring Meeting, 23–25 May 2022.
80. *Bright, non-iridescent structural coloration from 2D clay nanosheet suspensions*. P.H. Michels-Brito, V. Dudko, D. Wagner, P. Markus, G. Papastavrou, L. Michels, J. Breu, **J.O. Fossum**. Poster. Virtual MRS Spring Meeting, 23–25 May 2022.
81. *Large band gap of insulator clay nanosheets*. B. Pacáková, P.E. Vullum, J. Breu, **J.O. Fossum**. Poster. Virtual MRS Spring Meeting, 23–25 May 2022.
82. *Nanorafts - clay nanosheets decorated with magnetic nanoparticles*. P.H. Michels-Brito, B. Pacáková, L. Michels, S.H. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Talk. session Defect Engineering and Interfacial Effects in 2D Materials II, APS March meeting 2022, Chicago, USA, 14–18 March 2022.
83. *Self-wrinkling large bandgap insulating nanosheets for graphene sensor applications*. P.H. Michels-Brito, B. Pacáková, J. Breu, P. Dommersnes, **J.O. Fossum**. Poster. Virtual APS March meeting 2022, 14–18 March 2022.
84. *Graphene confined in layered silicate*. B. Pacáková, M. Matejdes, D. Wagner, P.H. Michels-Brito, K.K. Seljelid, L. Michels, J.W. Wells, S. Raaen, J. Breu, **J.O. Fossum**. Poster. APS March meeting 2022, Chicago, USA, 14–18 March 2022.
85. *Large band gap of insulator clay nanosheets*. B. Pacáková, P.E. Vullum, J. Breu, **J.O. Fossum**. Poster. APS March meeting 2022, Chicago, USA, 14–18 March 2022.
86. *Advanced physical properties of natural vermiculite clay*. B. Pacáková, B. Lahtinen-Dahl, H. Demchenko, P.H. Michels-Brito, S. Raaen, **J.O. Fossum**. Poster. APS March meeting 2022, Chicago, USA, 14–18 March 2022.
87. *Magnetic Janus Clay Nanosheets*. P.H. Michels-Brito, B. Pacáková, L. Michels, S.H. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Talk. Indiana University-Purdue University, Indianapolis, Indiana, USA, 11 March 2022.
88. *Graphene confined in layered silicate*. B. Pacáková, M. Matejdes, D. Wagner, P.H. Michels-Brito, K.K. Seljelid, L. Michels, J.W. Wells, S. Raaen, J. Breu, **J.O. Fossum**. Poster. Annual Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21–31 March 2022.

89. *Study on orientation of nematic suspensions of clay nanosheets in magnetic field*. Y. Yu, B. Pacáková, P.H. Michels-Brito, L. Michels, S.H. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Poster. Annual Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21–31 March 2022.
90. *2D Magnetic Janus Clay Nanosheets*. P.H. Michels-Brito, B. Pacáková, L. Michels, S.H. Toma, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Poster. Annual Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21–31 March 2022.
91. *Bright, Non-Iridescent Structural Coloration from Clay Mineral Nanosheet Suspensions*. P.H. Michels-Brito, V. Dudko, D.R. Wagner, P. Markus, G. Papastavrou, L. Michels, J. Breu, **J.O. Fossum**. Poster. Annual Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21–31 March 2022.
92. *Unmodified Clay Nanosheets at the Air-Water Interface*. P.H. Michels-Brito, A.M. Gasperini, L. Mayr, X. Puentes-Martinez, R. Tenorio, D. Wagner, K.D. Knudsen, K. Araki, R.G. Oliveira, J. Breu, L.P. Cavalcanti, **J.O. Fossum**. Poster. Annual Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21–31 March 2022.
93. *Optimizing processing of plant derived Pickering food emulsions. Pickering emulsions based on food-grade oil and edible nanoparticles extracted from Moringa Oleifera tree*. N. Azmi, L. Rweyemamu, **J.O. Fossum**. Poster. Annual Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21–31 March 2022.
94. *Investigating swelling and delaminating clay nanolayers in a controlled manner*. O. Trigueiro Neto, K.H. Olsen, P.H. Michels-Brito, T.S. Plivelic, J. Breu, B. Pacáková, L. Michels, V. Liljeström, L.P. Cavalcanti, K.D. Knudsen, **J.O. Fossum**. Poster. Annual Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21–31 March 2022.
95. *Structural investigation of the gelation dynamics of colloidal silica*. K.K. Seljelid, L. Cavalcanti, K.D. Knudsen, M. Carvalho, I. Fjelde, Y. Méheust, **J.O. Fossum**. Poster. Annual Geilo School-The Physics of Evolving Matter: Memory, Learning and Evolution, Geilo, Norway, 21–31 March 2022.
96. *USAXS Study of High Aspect Ratio 2D Clay Nanolayer Suspended in saline Water—Nematic Self-Assembly in the Photonic Range of Interlayer Spacings*. O. Trigueiro Neto, P.H. Michels-Brito, T.S. Plivelic, D. Wagner, J. Breu, B. Pacáková, K. Knudsen, **J.O. Fossum**. Talk. Session SB09.13.07: Bioinspired Materials III, MRS Fall Meeting 2021, Boston, USA, 29 November – 2 December 2021.
97. *Graphene Confined in Layered Silicate*. B. Pacáková, M. Matejdes, P.H. Michels-Brito, L. Michels, J. Breu, **J.O. Fossum**. Poster. SESSION EQ20.20.21: Inorganic-Organic and Hybrid 2D Materials, MRS Fall Meeting 2021, Boston, USA, 29 November – 2 December 2021.
98. *Nanorafts—Clay Nanosheets Decorated with Magnetic Nanoparticles*. P.H. Michels-Brito, B. Pacáková, L. Michels, V. Liljestrom, S. Toma, D. Wagner, K. Knudsen, K. Araki, J. Breu, **J.O. Fossum**. Talk. SESSION EQ02.08.07: Nanostructures of Low Dimensional Materials I, MRS Fall Meeting 2021, Boston, USA, 29 November – 2 December 2021.
99. *Bright, Non-Iridescent Structural Coloration from Clay Mineral Nanosheet Suspensions*. P.H. Michels-Brito, V. Dudko, D. Wagner, J. Breu, **J.O. Fossum**. Talk. SESSION SB09.05.02: Bioinspired Materials III, MRS Fall Meeting 2021, Boston, USA, 29 November – 2 December 2021.
100. *Cellulose-Based Membranes for Effective Capture of Oil Microdroplets in Water*. A.C. Trindade, A.P. Almeida, J. Oliveira, J. Canejo, S. Fernandes, **J.O. Fossum**, M.H. Godinho. Talk. SESSION SB11: Complex Fluids/Emulsions, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.
101. *Binary Liquid Crystals Based on Clay and Graphene Oxide*. B. Pacáková, R. Tenorio, M. Matejdes, Y. Méheust, P.H. Michels-Brito, J. Breu, **J.O. Fossum**. Talk. SESSION SB11: Colloids, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.
102. *Tuning Synthetic Active Matter—From Living Clusters to Liquid Swarms*. P. Dommersnes, **J.O. Fossum**. Talk. SESSION SB11: Active Matter, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.
103. *Wrapping of Drops and Nanoparticles in Clay Nanosheets*. O. Trigueiro Neto, V. Liljeström, K. Araki, L. Mayr, J. Breu, **J.O. Fossum**, P. Dommersnes. Poster. SESSION SB11: Complex Fluids/Emulsion, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.

104. *Nanofluidics in Smectite Clays*. L.P. Cavalcanti, H.N. Bordallo, K. Knudsen, **J.O. Fossum**. Poster. SESSION FF02: 2D Nanomaterials-Based Nanofluidics, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.
105. *Collective Motion of Quincke Rotating Beads*. E.M. Roman, T.F. Kristiansen, B. Pacáková, J. Timonen, P. Dommersnes, **J.O. Fossum**. Poster. session MS01 Extreme Mechanics, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.
106. *Clay Hybrid Nano-Layer Assembly, Structure and Mechanics at the Air-Water Interface*. P.H. Michels-Brito, A. Gasperini, L. Mayr, X. Puentes-Martinez, R. Tenorio, L.P. Cavalcanti, K. Araki, J. Breu, K. Knudsen, **J.O. Fossum**. Poster. SESSION MS03: Biocomposites, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.
107. *Cellulose-Based Materials for Magnetic Paper*. A.C. Trindade, J. Canejo, S.H. Toma, S. Fernandes, M.H. Godinho, K. Araki, **J.O. Fossum**. Poster. SESSION SB01: Soft Robotics, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.
108. *Carbon Dioxide and Methane Selectivity of a Smectite Clay with Different Intercalated Cations*. K.W. Bø Hunvik, L.P. Cavalcanti, M. Riess, P. Loch, K.K. Seljelid, V. Josvanger, R. Droppa, D. Wallacher, B. Pacáková, P.H. Michels-Brito, K. Knudsen, J. Breu, **J.O. Fossum**. Poster. SESSION EN04: Novel Membrane Materials, Metrologies and Applications, MRS Fall Meeting 2019, Boston, USA, 2–6 December 2019.
109. *Exfoliation of Clay Nanosheets*. O. Trigueiro Neto, V.V. Liljeström, K.K. Seljelid, L. Mayr, J. Breu, P.G. Dommersnes, **J.O. Fossum**. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
110. *Carbon dioxide capture and retention by synthetic Fluorohectorite (Fh) clay*. K.W. Bø Hunvik, L. Cavalcanti, M. Riess, P. Loch, K.K. Seljelid, V. Josvanger, D. Wallacher, R.D. Droppa, B. Pacáková, P.H. Michels-Brito, K.D. Knudsen, J. Breu, **J.O. Fossum**. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
111. *Microcapsule controlled gelation in channels and pores such as those in petroleum reservoirs*. K.K. Seljelid, O.T. Neto, V.V. Liljeström, I. Fjelde, M. Carvalho, **J.O. Fossum**. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
112. *Water vapor diffusive transport in a smectite clay: Cationic control of normal versus anomalous diffusion*. L. Michels, Y. Méheust, M.A.S. Altoé, É.C. dos Santos, H. Hemmen, R. Droppa Jr., G.J. da Silva, **J.O. Fossum**. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
113. *Clay hybrid nano-layer assembly, structure and mechanics at the air-water interface*. P.H. Michels-Brito, A.M. Gasperini, L. Mayr, X. Puentes-Martinez, R.P. Tenório, L.P. Cavalcanti, K. Araki, J. Breu, K.D. Knudsen, **J.O. Fossum**. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
114. *Bacteria swimming in complex fluids*. H. Urra, G. Junot, P. Dommersnes, J. Arlt, V. Martinez, **J.O. Fossum**, E. Clément. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
115. *Active turbulence/Vortex array transition in Quincke rotating beads*. E. Martinez, T. Kristiansen, B. Pacáková, J. Timonen, P. Dommersnes, **J.O. Fossum**. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
116. *Cellulose-based Membranes for Effective Capture of Oil Microdroplets in Water*. A.C. Trindade, A.P.C. Almeida, J. Oliveira, J.P. Canejo, S.N. Fernandes, **J.O. Fossum**, M.H. Godinho. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
117. *Tuning Photonic Properties of Cellulose-Clay Nano Structures*. A.C. Trindade, M. Carreto, S. Fernandes, M. Daab, J. Breu, M.H. Godinho, **J.O. Fossum**. Talk (invited). 6th Annual International

Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.

118. *Polar Flocking of Active Clusters*. P. Dommersnes, **J.O. Fossum**. Talk (invited). 6th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 6–7 October 2019.
119. *Turbulent vortex dynamic with Quincke rotating beads*. E. Martinez, P. Dommersnes, B. Pacáková, T. Kristiansen, J. Akkola, **J.O. Fossum**. Talk. Oral and poster presentation at Gordon Research Conference and Seminar. Soft Condensed Matter Physics. New London, August 2019. United States Gordon Research Conference and Seminar. Soft Condensed Matter Physics. New London, August 2019. United States.
120. *Water mobility and its influence in the capture and retention of CO2 in the interlayer space of Fluorohectorite clay minerals*. S.R. Larsen, L.P. Aldridge, L. Michels, W.P. Gates, É.C. dos Santos, L.P. Cavalcanti, **J.O. Fossum**, H.N. Bordallo. Talk. Euroclay2019, Paris France, 1–5 July 2019.
121. *Water vapor diffusive transport in a smectite clay: Cationic control of normal versus anomalous diffusion*. L. Michels, Y. Méheust, M.A.S. Altoé, É.C. dos Santos, H. Hemmen, R. Droppa Jr., **J.O. Fossum**, G.J. da Silva. Talk. Euroclay2019, Paris France, 1–5 July 2019.
122. *The Role of Interlayer Cations for CO2 Capture in a Smectite Clay*. K.W. Bø Hunvik, L. Cavalcanti, M. Daab, K.K. Seljelid, V. Josvanger, R.D. Droppa, B. Pacáková, P.H. Michels-Brito, K.D. Knudsen, J. Breu, **J.O. Fossum**. Poster. Euroclay2019, Paris France, 1–5 July 2019.
123. *Fluorohectorite, a promising material for drug delivery*. E.C. dos Santos, W.P. Gates, L. Michels, **J.O. Fossum**, H.N. Bordallo. Poster. Euroclay2019, Paris France, 1–5 July 2019.
124. *Clay nanoparticle organization at the air-liquid interface*. P.H. Michels-Brito, A.M. Gasperini, X. Puentes-Martinez, L.P. Cavalcanti, J. Breu, K. Araki, K.D. Knudsen, **J.O. Fossum**. Poster. Euroclay2019, Paris France, 1–5 July 2019.
125. *Iridescent Cellulose-Clay Nano Structures*. A.C. Trindade, S. Fernandes, V. Liljeström, M. Daab, J. Breu, M.H. Godinho, **J.O. Fossum**. Poster. Euroclay2019, Paris France, 1–5 July 2019.
126. *In-situ intercalation of pharmaceutics in smectite clays*. L. Michels, E. dos Santos, B. Pacáková, K. Hunvik, L.P. Cavalcanti, K. Araki, H.N. Bordallo, K.D. Knudsen, **J.O. Fossum**. Poster. Euroclay2019, Paris France, 1–5 July 2019.
127. *Iridescent Cellulose-Clay Nano Structures*. A.C. Trindade, J. Breu, M.H. Godinho, **J.O. Fossum**. Poster. Materiais 2019, Lisboa, Portugal, 16 April 2019.
128. *Patterned non-woven cellulosic membranes for recovery of oil microdroplets*. A.C. Trindade, A.P.C. Almeida, J. Oliveira, J.P. Canejo, S.N. Fernandes, **J.O. Fossum**, M.H. Godinho. Poster. EUPOC2019 Electrospinning and Related Techniques: From Design to Production of Advanced Polymer Materials and Devices, Como, Italy, 13–14 May 2019.
129. *Nano-wrapping of nanoparticles*. O. Trigueiro Neto, V.V. Liljeström, K. Araki, P.G. Dommersnes, **J.O. Fossum**. Poster. Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Geilo, Norway, 11–21 March 2019.
130. *Collective motion of Quincke rotating beads*. E. Martinez, P. Dommersnes, B. Pacáková, T. Kristiansen, J. Akkola, **J.O. Fossum**. Poster. Geilo School 2019. Evolving Soft Matter: Shape, Dynamics and Functionality. Geilo, March 2019. Norway.
131. *Electrostatic self-Assembly of facetted, anisotropic, and helical nanoparticle superstructures*. V. Liljeström, A. Ora, J. Mikkilä, **J.O. Fossum**, M.A. Kostiainen. Poster. Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Geilo, Norway, 11–21 March 2019.
132. *Clay nanoparticle organization at the air-liquid interface*. P.H. Michels-Brito, A.M. Gasperini, X. Puentes-Martinez, L.P. Cavalcanti, J. Breu, K. Araki, K.D. Knudsen, **J.O. Fossum**. Poster. Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Geilo, Norway, 11–21 March 2019.
133. *Determining the Role of the Ionic Radii of Interlayer Cations for CO2 Capture in Synthetic Smectite Clay*. K.W. Bø Hunvik, L. Cavalcanti, M. Daab, B. Pacáková, P.H. Brito, K. Knudsen, J. Breu, **J.O.**

Fossum. Poster. Geilo School 2019: Evolving Soft Matter: Shape, Dynamics and Functionality, Geilo, Norway, 11–21 March 2019.

134. *Electrostatic self-assembly protein cages, viruses, and synthetic nanoparticles into periodic superstructures with distinct shape*. V. Liljeström, A. Ora, J. Mikkilä, **J.O. Fossum**, M.A. Kostiainen. Talk. Colloidal Science and Metamaterials 2019, Paris, France, 25–27 February 2019.
135. *Determining the Role of the Ionic Radii of Interlayer Cations for CO2 Capture in Synthetic Smectite Clay*. K.W. Bø Hunvik, L. Cavalcanti, M. Daab, B. Pacáková, P.H. Brito, K. Knudsen, J. Breu, **J.O. Fossum**. Poster. MRS Fall Meeting 2018, Boston, USA, 25–30 November 2018.
136. *Assembly and fixation of microparticles confined to interfaces and droplets*. V. Liljeström, A.T. Krüger, O.T. Neto, P. Dommersnes, **J.O. Fossum**. Talk. 5th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 21–22 October 2018.
137. *Nanofluidics in smectite clays*. L.P. Cavalcanti, H.N. Bordallo, K.D. Knudsen, **J.O. Fossum**. Talk. 5th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 21–22 October 2018.
138. *Surface Modification of Clay for Self-Assembled Materials*. P.H. Michels-Brito, B. Pacáková, V. Liljeström, L. Cavalcanti, M. Stoter, K.D. Knudsen, J. Breu, **J.O. Fossum**. Talk. 5th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 21–22 October 2018.
139. *Determining the Role of the Ionic Radii of Interlayer Cations for CO2 Capture in Synthetic Smectite Clay*. K.W. Bø Hunvik, L. Cavalcanti, M. Daab, B. Pacáková, P.H. Brito, K. Knudsen, J. Breu, **J.O. Fossum**. Talk. 5th Annual International Workshop on Soft & Complex Matter, Norwegian Academy of Science and Letters, Oslo, Norway, 21–22 October 2018.
140. *Collective motion of Quincke rotating beads*. E. Martinez, P. Dommersnes, B. Pacáková, T. Kristiansen, J. Akkola, **J.O. Fossum**. Talk. Summer School: Active Matter and Non-Equilibrium Statistical Physics. École de Physique des Houches, Les Houches, France, September 2018.
141. *Turbulent-like behavior in the collective motion of electro-rotating beads*. E. Martinez, P. Dommersnes, B. Pacáková, T. Kristiansen, J. Akkola, **J.O. Fossum**. Talk. 5th Annual International Workshop on Soft and Complex Matter. Oslo, Norway, October 2018.
142. *Active condensed matter from electro-hydrodynamically propelled particles*. P.G. Dommersnes, **J.O. Fossum**. Talk. 5th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 21–22 October 2018.
143. *Tuning photonic properties of cellulose-clay nanostructures*. A.C. Trindade, S. Fernandes, V.V. Liljeström, M.H. Godinho, **J.O. Fossum**. Talk. 5th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 21–22 October 2018.
144. *Water vapor diffusive transport in a smectite clay: Cationic control of normal vs. anomalous diffusion*. L. Michels, Y. Méheust, M.A.S. Altoé, É.C. dos Santos, H. Hemmen, R. Droppa Jr., G.J. da Silva, **J.O. Fossum**. Talk. 5th Annual International Workshop on Soft & Complex Matter, Oslo, Norway, 21–22 October 2018.
145. *Collective dynamics of electro-rotating granular particles*. E. Martinez, P.G. Dommersnes, T.F. Kristiansen, B. Pacáková, **J.O. Fossum**. Poster. Gordon Research Conference on Granular Matter, Stonehill College, Easton, MA, USA, 22–27 July 2018.
146. *Nanolayered Clay—2D Natural Material*. B. Pacáková, P. Michels-Brito, S. Godrich, K.W.B. Hunvik, J. Breu, **J.O. Fossum**. Poster. MAX IV Summer School, Lund, Sweden, 21–29 May 2018.
147. *Microfluidics + SAXS: unilamellar liposome production*. L.P. Cavalcanti, K.D. Knudsen, **J.O. Fossum**. Talk. Kick-off meeting, project "Nanofluids for IOR and Tracer Technology", Paris, France, 19–20 April 2018.
148. *Nanolayered clay - a 2D natural material*. B. Pacáková, S. Godrich, K. Hunvik, J. Breu, **J.O. Fossum**. Poster. MRS Fall Meeting, Boston, USA, 26 November – 1 December 2017.

149. *Clay - new important member of 2D materials family?*. B. Pacáková, **J.O. Fossum**, T. Verhagen, J. Vejpravova, M. Kalbac. Talk. 4th Annual International Workshop on Soft and Complex Matter, Oslo, 29–30 October 2017.
150. *Active matter from electro-hydrodynamically propelled particles*. P.G. Dommersnes, **J.O. Fossum**, T.F. Kristiansen, E. Martinez. Talk. International workshop "Biomechanics of Living Systems, from Cells to Organisms", Oslo, Norway, 29–30 September 2017.
151. *Why are high charge density clays effective for CO2 capture?*. L.P. Cavalcanti, G. Kalantzopoulos, P. Sobas, H.N. Bordallo, G. Helgesen, K.D. Knudsen, **J.O. Fossum**. Talk. Norsk Fysisk Selskap - Fysikermøtet 2017, Tromsø 7–9 August 2017.
152. *Absorption and desorption of CO2 in vermiculite and fluorohectorite clays as studied by photoemission and temperature programmed desorption*. K.W.B. Hunvik, X. Yu, S. Raaen, **J.O. Fossum**. Poster. 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session NT14: CO2 or Methane Capture by Clays, Granada Spain, 21 July 2017.
153. *Vapor transport in a porous smectite clay: from normal to anomalous diffusion*. L. Michels, Y. Méheust, M.A.S. Altoé, H. Hemmen, R. Droppa Jr., G. Grassi, **J.O. Fossum**, G.J. da Silva. Poster. 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session ES04: Clay Barriers Performance in the Long-Term Isolation of Waste: Thermal; Hydro-Mechanical and Chemical Interactions, Granada Spain, 21 July 2017.
154. *Clay model for drug adsorption: study of the interaction of ciprofloxacin with Li-fluorohectorite*. A. Lam, A. Rivera, C.M. Zicovich-Wilson, L.J. Alvarez, **J.O. Fossum**. Poster. 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session OM05: Computational Modeling of Clay Minerals and Related Materials, Granada Spain, 18 July 2017.
155. *High charge density smectite clays for CO2 capture*. L.P. Cavalcanti, G. Kalantzopoulos, P. Sobas, H.N. Bordallo, G. Helgesen, K.D. Knudsen, **J.O. Fossum**. Talk. 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session ES02: Environmental Applications of Clay Minerals, Granada Spain, 17 July 2017.
156. *Li-fluorohectorite as drug delivery system: incorporation of sulfamethoxazole and trimethoprim*. D. Hernández, L. Lazo, L. Váldez, L.C. De Ménorval, Z. Rozynek, E. Altshuler, **J.O. Fossum**, A. Rivera. Talk. 16th International Clay Conference (16ICC): Clays from the Oceans to Space, in Session OM02: Drug Delivery Systems Based on Layered Materials, Granada Spain, 17 July 2017.
157. *Mechanics and flow of Pickering films*. **J.O. Fossum**, A. Mikkelsen, P. Dommersnes, Z. Rozynek. Poster. ISMC2016, 4th International Soft Matter Conference, Grenoble, France, 12–16 September 2016.
158. *Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs*. É.C. Santos, **J.O. Fossum**, H.N. Bordallo. Talk. Danscatt Annual meeting, Copenhagen, Denmark, 26–27 May 2016.
159. *Physical capture and release of drug molecules by clays: X-ray and neutron studies*. É.C. Santos, **J.O. Fossum**, H.N. Bordallo. Talk. Startup Seminar, Copenhagen University, Copenhagen, Denmark, 1 April 2016.
160. *Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs*. É.C. Santos, **J.O. Fossum**, H.N. Bordallo. Poster. 4th International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas, Brazil, 22–25 February 2016.
161. *Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cations*. **J.O. Fossum**, L. Michels, Z. Rozynek, H. Hemmen, K. Rustenberg, P.A. Sobas, G.N. Kalantzopoulos, K.D. Knudsen, M. Janek, T.S. Plivelic, G.J. da Silva. Poster. Clay Colloids in Aqueous Systems - BELBAR conference, Berlin, Germany, 3–4 February 2016.
162. *Stabilization of emulsions by heterocoagulation of clay minerals using a microfluidic device*. A. Gholamipour-Shirazi, M. Carvalho. Talk. **J.O. Fossum** in 23rd ABCM Int. Congr. Mech. Eng., Rio de Janeiro, December 2015.
163. *Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs*. É.C. Santos, L. Michels, **J.O. Fossum**, H.N. Bordallo. Poster. 5th Niels Bohr Institute Academy, Copenhagen, Denmark, 9–13 November 2015.

164. *Mechanics and rheology of Pickering films*. A. Mikkelsen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Poster. International Conference “Material Science in the Age of Sustainability”, Havana, Cuba, 29 June – 1 July 2015.
165. *Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs*. É.C. Santos, L. Michels, **J.O. Fossum**, H.N. Bordallo. Poster. International Conference “Material Science in the Age of Sustainability”, Havana, Cuba, 29 June – 1 July 2015.
166. *Li-Fluorohectorite as drug support: incorporation of tramadol and trimethoprim*. D. Hernández, L. Valdés, L.C. de Ménorval, **J.O. Fossum**, A. Rivera. Poster. International Conference “Material Science in the Age of Sustainability”, Havana, Cuba, 29 June – 1 July 2015.
167. *Ciprofloxacin intercalation into a synthetic clay (NaFh)*. L. Valdés, J. Jiménez, I. Pérez, E.L. Hansen, Z. Rozynek, L.C. de Ménorval, E. Altshuler, **J.O. Fossum**, A. Rivera. Poster. International Conference “Material Science in the Age of Sustainability”, Havana, Cuba, 29 June – 1 July 2015.
168. *Vancomycin incorporation into a smectites: preliminary studies*. S. Alfonso, L. Valdés, L.C. de Ménorval, E. Estevez, **J.O. Fossum**, A. Rivera. Poster. International Conference “Material Science in the Age of Sustainability”, Havana, Cuba, 29 June – 1 July 2015.
169. *Mechanics and rheology of Pickering films*. A. Mikkelsen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Talk (invited). MarchCOMeeting’15-JuneEdition, Havana, Cuba, 24–26 June 2015.
170. *Hydration, cation-exchange process and storage ability og clay particles*. E.C. Santos, L. Michels, M.A.S. Altoe, **J.O. Fossum**, H. Bordallo. Talk (invited). MarchCOMeeting’15-JuneEdition, Havana, Cuba, 24–26 June 2015.
171. *Ciprofloxacin intercalation into a synthetic clay (NaFh)*. L. Valdes, J. Jimenez, L. Perez, E.L. Hansen, Z. Rozynek, L.C. de Menorval, E. Altshuler, **J.O. Fossum**, A. Rivera. Talk (invited). MarchCOMeeting’15-JuneEdition, Havana, Cuba, 24–26 June 2015.
172. *Mechanics and rheology of Pickering films*. A. Mikkelsen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Poster. MarchCOMeeting’15-JuneEdition, Havana, Cuba, 24–26 June 2015.
173. *Intercalation of Ciprofloxacin into Lithium-Fluorohectorite at different pHs*. É.C. Santos, L. Michels, **J.O. Fossum**, H.N. Bordallo. Poster. MarchCOMeeting’15-JuneEdition, Havana, Cuba, 24–26 June 2015.
174. *Interaction between a synthetic clay (LiFh) and NSAIDs drugs*. L. Valdes, D. Hernandez, L.-C. de Ménorval, **J.O. Fossum**, A. Rivera. Poster. MarchCOMeeting’15-JuneEdition, Havana, Cuba, 24–26 June 2015.
175. *Mechanics and rheology of Pickering films*. A. Mikkelsen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Talk (invited). Nordic Physics Days, NTNU, Trondheim Norway, 9–12 June 2015.
176. *Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cations*. L. Michels, **J.O. Fossum**, Z. Rozynek, H. Hemmen, K. Rustenberg, P.A. Sobas, G.N. Kalantzopoulos, G. Helgesen, K.D. Knudsen, M. Janek, T.S. Plivelic, G.J. da Silva. Talk (invited). Nordic Physics Days, NTNU, Trondheim Norway, 9–12 June 2015.
177. *Capture and release of drug molecules by clays*. É.C. Santos, L. Michels, **J.O. Fossum**, H.N. Bordallo. Poster. Nordic Physics Days, NTNU, Trondheim Norway, 9–12 June 2015.
178. *Hydration states of Ni-Fluorohectorite smectite clay studied by X-ray diffraction*. M.A.S. Altoé, L. Michels, G. Grassi, L. Ribeiro, E.C. dos Santos, **J.O. Fossum**, R. Droppa Jr, G.J. da Silva. Poster. "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, 16–26 March 2015 at Bardøla Høyfjellshotel, Geilo, Norway.
179. *A Microfluidic Approach to Produce Monodisperse O/W Emulsions Stabilized by Laponite Nanoparticles*. A. Gholamipour-Shirazi, M. Carvalho, **J.O. Fossum**. Poster. "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, 16–26 March 2015 at Bardøla Høyfjellshotel, Geilo, Norway.
180. *Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cations*. L. Michels, **J.O. Fossum**, Z. Rozynek, H. Hemmen, K. Rustenberg, P.A. Sobas, G.N. Kalantzopoulos, K.D. Knudsen, M. Janek, T.S. Plivelic, G.J. da Silva. Poster. "The Geilo School" 2015: Cooperative particles:

Patchy colloids, active matter and nanofluids, 16–26 March 2015 at Bardøla Høyfjellshotel, Geilo, Norway.

181. *Mechanics and rheology of Pickering films*. A. Mikkelsen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Poster. "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, 16–26 March 2015 at Bardøla Høyfjellshotel, Geilo, Norway.
182. *Capture and release of drug molecules by clays*. É.C. Santos, **J.O. Fossum**, H.N. Bordallo. Poster. "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, 16–26 March 2015 at Bardøla Høyfjellshotel, Geilo, Norway.
183. *Incorporation of Ciprofloxacin into NaFh clays: slow-release systems*. L. Valdés, J. Jiménez, I. Pérez, E.L. Hansen, Z. Rozynek, L.C. de Ménorval, E. Altshuler, **J.O. Fossum**, A. Rivera. Poster. "The Geilo School" 2015: Cooperative particles: Patchy colloids, active matter and nanofluids, 16–26 March 2015 at Bardøla Høyfjellshotel, Geilo, Norway.
184. *Quincke Rotating Drops*. A. Mikkelsen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Poster. 2014 MRS Fall Meeting & Exhibit, Symposium JJ 3D Mesoscale Architectures–Synthesis, Assembly, Properties and Applications, Boston, Massachusetts, USA, 30 November – 5 December 2014.
185. *Analysis of the confined cation-exchange process via XRD and EDS experiments*. É.C. Santos, G. Grassi, L. Michels, Z. Rozynek, M.A.S. Altoé, C.L.S. da Fonseca, R. Droppa Jr., A. Gholamipour-Shirazi, **J.O. Fossum**, G.J. da Silva. Poster. 4th Niels Bohr Institute Academy, Copenhagen, Denmark, 10–14 November 2014.
186. *Intercalation and Retention of Carbon Dioxide in a Smectite Clay promoted by Interlayer Cations*. L. Michels, **J.O. Fossum**, Z. Rozynek, H. Hemmen, K. Rustenberg, P.A. Sobas, G.N. Kalantzopoulos, G. Helgesen, K.D. Knudsen, M. Janek, T.S. Plivelic, G.J. da Silva. Talk. CLIMIT PhD Seminar 2014 Oslo, 21–22 October 2014.
187. *Quincke rotating drops*. A. Mikkelsen, Z. Rozynek, **J.O. Fossum**, P. Dommersnes. Poster. FLOW14: 1st International Conference on Micro & Nanofluidics: Fundamentals and Applications, University of Twente - The Netherlands, 18–21 May 2014.
188. *Colloidal particle tubes by sinking objects*. A. Mikkelsen, A.H.T. Pedersen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Poster. FLOW14:, 1st International Conference on Micro & Nanofluidics: Fundamentals and Applications, University of Twente - The Netherlands, 18–21 May 2014.
189. *Intercalation and Retention of CO2 in Fluorohectorite Clay at Near-Ambient Conditions*. L. Michels, H. Hemmen, Z. Rozynek, K. Rustenberg, T. Plivelic, G.J. da Silva, **J.O. Fossum**. Poster. European Geosciences Union General Assembly 2014, Vienna, Austria, 27 April – 2 May 2014, Symposium ERE2.2, Long term storage of CO2 and the petrophysics of unconventional hydrocarbons: Results from laboratory studies.
190. *Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at Near-Ambient Condition*. L. Michels, H. Hemmen, Z. Rozynek, K.H. Rustenberg, T.S. Plivelic, G.J. da Silva, **J.O. Fossum**. Talk. 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil, 17–22 February 2014.
191. *Electrohydrodynamic structuring of colloidal armoured drops*. Z. Rozynek, P. Dommersnes, A. Mikkelsen, L. Michels, **J.O. Fossum**. Talk. 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil, 17–22 February 2014.
192. *Quincke – Electrohydrodynamic drop rotation*. A. Mikkelsen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Talk. 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil, 17–22 February 2014.
193. *Micrometer-Sized Pickering Emulsions Stabilized by Laponite Nanoparticles*. A. Gholamipour-Shirazi, M. Carvalho, **J.O. Fossum**. Talk. 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil, 17–22 February 2014.
194. *EXAFS and XRD studies of water intercalation in synthetic nanosilicate Ni-Fluorohectorit*. L. Ribeiro, L. Michels, M.S.P. Mundim, M.H. Sousa, R. Droppa Jr., **J.O. Fossum**, G.J. da Silva, K.C. Mundim. Poster.

3rd International Workshop on Complex Physical Phenomena in Materials, Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil, 17–22 February 2014.

195. *Cation Exchange in a Synthetic Clay Mineral*. G. Grassi, L. Michels, Z. Rozynek, R. Droppa Jr., A. Gholamipour-Shirazi, **J.O. Fossum**, G.J. da Silva. Poster. 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil, 17–22 February 2014.
196. *Electrohydrodynamic controlled assembly and fracturing of thin colloidal particle films confined at drop interfaces*. Z. Rozynek, P. Dommersnes, A. Mikkelsen, L. Michels, **J.O. Fossum**. Talk. 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil, 17–22 February 2014.
197. *Janus colloidal shells by microfluidics: Preliminary results on shell fabrication and sintering*. M. Prus, A. Kalicka, T. Szymborski, Z. Rozynek, A. Mikkelsen, P. Dommersnes, **J.O. Fossum**. Talk. 3rd International Workshop on Complex Physical Phenomena in Materials, Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil, 17–22 February 2014.
198. *Intercalation And Retention In Clay At Near-Ambient Conditions*. L. Michels, H. Hemmen, Z. Rozynek, K.H. Rustenberg, T.S. Plivelic, G.J. Silva, **J.O. Fossum**. Talk. NSSM 2014, 11th Nordic Workshop on Scattering from Soft Matter, KTH Royal Institute of Technology, Stockholm, Sweden, 16–17 January 2014.
199. *A New Approach for Fabricating Janus and Patchy Shells*. A. Mikkelsen, Z. Rozynek, P. Dommersnes, **J.O. Fossum**. Talk. 2013 MRS Fall Meeting & Exhibit, 1–6 December 2013, Hynes Convention Center, Boston, MA, Symposium WW: Self-Organization and Nanoscale Pattern Formation.
200. *Orientational Order in a Glass of Charged Platelets with a Concentration Gradient*. E.L. Hansen, S. Jabbari-Farouji, H. Mauroy, T.S. Plivelic, D. Bonn, **J.O. Fossum**. Poster. 2013 MRS Fall Meeting & Exhibit, 1–6 December 2013, Hynes Convention Center, Boston, MA, Symposium WW: Self-Organization and Nanoscale Pattern Formation.
201. *Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at Near-Ambient Conditions*. H. Hemmen, L. Michels, Z. Rozynek, K. Rustenberg, T. Plivelic, **J.O. Fossum**. Poster. 2013 MRS Fall Meeting & Exhibit, 1–6 December 2013, Hynes Convention Center, Boston, MA, Symposium OO: Solid-State Chemistry of Inorganic Materials.
202. *Water Intercalation and Dynamics of Humidity Uptake by Meso-, and Nano-porous Clay*. L. Michels, H. Hemmen, Z. Rozynek, G. Grassi, R. Droppa, G.J. da Silva, **J.O. Fossum**. Poster. International Soft Matter Conference, Sapienza Università di Roma, Italy, 15–19 September 2013.
203. *New approach to fabricating Janus and Patchy colloidal shells*. Z. Rozynek, A. Mikkelsen, P. Dommersnes, **J.O. Fossum**. Poster. International Soft Matter Conference, Sapienza Università di Roma, Italy, 15–19 September 2013.
204. *Clay-based active eye pupil-like structure*. Z. Rozynek, P. Dommersnes, A. Mikkelsen, R. Castberg, **J.O. Fossum**. Talk (invited). International Mini-Workshop on Multi-Component Soft and Complex Fluids, International Center for Condensed Matter Physics (ICCMP), University of Brasília (UnB), Brasília-DF, Brazil, 15–16 July 2013.
205. *Orientational order in a glass of charged platelets with a concentration gradient*. E.L. Hansen, S. Jabbari-Farouji, H. Mauroy, T.S. Plivelic, D. Bonn, **J.O. Fossum**. Talk (invited). International Mini-Workshop on Multi-Component Soft and Complex Fluids, International Center for Condensed Matter Physics (ICCMP), University of Brasília (UnB), Brasília-DF, Brazil, 15–16 July 2013.
206. *Active structuring of colloidal microbeads on liquid drops (and new approach to fabricating patchy shells)*. Z. Rozynek, P. Dommersnes, A. Mikkelsen, R. Castberg, **J.O. Fossum**. Talk (invited). International Mini-Workshop on Complex Drops and Emulsions Pontifícia Universidade Católica do Rio de Janeiro, Room 106, Cardeal Leme Building, PUC-Rio, Brazil, 12 July 2013.
207. *Swelling transition of a clay induced by heating*. E.L. Hansen, H. Hemmen, D.M. Fonseca, C. Coutant, K.D. Knudsen, T.S. Plivelic, D. Bonn, **J.O. Fossum**. Talk (invited). 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.

208. *Dynamics of humidity uptake by meso-, and nano-porous clay*. L. Michels, H. Hemmen, Z. Rozynek, R. Droppa, G.J. da Silva, **J.O. Fossum**. Talk. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
209. *Ciproflaxin drug capture and delivery by laponite and fluorohectorite clays: preliminary studies*. A. Rivera, Z. Rozynek, E.L. Hansen, L. Michels, **J.O. Fossum**, E. Altshuler. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
210. *An orientationally ordered Laponite glass*. E.L. Hansen, T.S. Plivelic, **J.O. Fossum**. Talk (invited). 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
211. *Self-organization in complex fluids of smectite clay*. Y. Méheust, K. Parmar, D.M. Fonseca, H. Hemmen, K.D. Knudsen, K.J. Måløy, **J.O. Fossum**. Talk (invited). 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
212. *Intercalation and retention of carbon dioxide in synthetic fluorohectorite clay at near-ambient conditions*. H. Hemmen, K.H. Rustenberg, L. Michels, Z. Rozynek, T.S. Plivelic, **J.O. Fossum**. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
213. *Studies Ni-fluorohectorite clay combining the XRD and EXAFS synchrotron methods*. L. Ribeiro, L. Michels, M.S.P. Mundim, M.H. Sousa, **J.O. Fossum**, G.J. da Silva, K.C. Mundim. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
214. *Hendricks-Teller-types peaks in clay*. G. Grassi, L.E. Michels, R. Droppa Jr., **J.O. Fossum**, G.J. da Silva. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
215. *Water intercalation in clay*. G. Grassi, L.E. Michels, R. Droppa Jr., **J.O. Fossum**, G.J. da Silva. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
216. *Synchrotron X-ray scattering studies in Cu-fluorohectorite*. C.L.S. Fonseca, G. Grassi, M.A.S. Altoé, L.E. Michels, R. Droppa Jr., **J.O. Fossum**, G.J. da Silva. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
217. *Swelling clay dependent on certain physical parameters*. M.A.S. Altoé, G. Grassi, L.E. Michels, R. Droppa Jr., **J.O. Fossum**, G.J. da Silva. Poster. 15th International Clay Conf. (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
218. *Clay stabilized Pickering emulsions and Janus particles: electro-coalescence of oil-clay droplets*. Z. Rozynek, P. Dommersnes, R. Castberg, A. Mikkelsen, **J.O. Fossum**. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
219. *Supercritical CO2 in aerogels and clay materials studied by small angle neutron scattering*. P.A. Sobas, K.D. Knudsen, G. Helgesen, A.T. Skjeltorp, H. Mauroy, **J.O. Fossum**. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
220. *Dynamic light scattering measurements of clay materials in liquid CO2: preliminary results*. P.A. Sobas, K.D. Knudsen, G. Helgesen, A.T. Skjeltorp, K.J. Måløy, Z. Rozynek, **J.O. Fossum**. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
221. *Clay particle rotation and alignment in electric fields*. R. Castberg, Z. Rozynek, **J.O. Fossum**, K.J. Måløy, P. Dommersnes. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
222. *Active structuring of clay colloidal armour on liquid drops*. P. Dommersnes, Z. Rozynek, K. Kjerstad, R. Castberg, A. Mikkelsen, K. Hersvik, **J.O. Fossum**. Talk (invited). 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
223. *Electric-field manipulation of clay particles: an overview*. Z. Rozynek, P. Dommersnes, R. Castberg, A. Mikkelsen, H. Mauroy, K.D. Knudsen, **J.O. Fossum**. Talk (invited). 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
224. *Transistor and piezoelectric effects in graphene-clay heterostructures for use in memory storage*. L. Britnell, T. Georgiou, A. Mishchenko, Y. Geliang, D.C. Elias, **J.O. Fossum**, A.K. Geim, K.S. Novoselov. Talk (invited). 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.

225. *Mudslides of clayey soils*. Y. Méheust, A. Khaldoun, P. Møller, A. Fall, E.L. Hansen, G. Wegdam, B. de Leeuw, **J.O. Fossum**, D. Bonn. Talk. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
226. *Polypropylene/organoclay nanocomposites in electric fields*. Z. Rozynek, S.M.L. Silva, H. Mauroy, E. de Azevedo, G.J. da Silva, **J.O. Fossum**, T. Plivelic. Talk. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
227. *Phase segregation in PNIPAAM-laponite hydrogels: the effect of dissolved oxygen*. H. Mauroy, Z. Rozynek, T.S. Plivelic, **J.O. Fossum**, G. Helgesen, K.D. Knudsen. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
228. *Polystyrene-clay nanocomposites: the effect of clay surface charge*. H. Mauroy, E.L. Hansen, Z. Rozynek, T.S. Plivelic, **J.O. Fossum**, G. Helgesen, K.D. Knudsen. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
229. *In situ monitoring of local bulk water contents and orientational order in paraffin/clay composites*. Z. Rozynek, R. Castberg, A. Mikkelsen, **J.O. Fossum**. Poster. 15th International Clay Conference (15ICC), Rio de Janeiro, Brazil, 7–11 July 2013.
230. *Hydration Transitions: High order analysis by synchrotron x-ray scattering*. G. Grassi, L.E. Michels, R. Droppa Jr, **J.O. Fossum**, G.J. da Silva. Poster. Third annual Niels Bohr International Academy workshop on ESS science: crossing space and time domains with SAS and QENS, NBI, Univ. Copenhagen, 24–28 June 2013.
231. *Water intercalation and dynamics of humidity uptake by meso-, and nano-porous clay*. L.E. Michels, G. Grassi, H. Hemmen, Z. Rozynek, G.J. da Silva, **J.O. Fossum**, R. Droppa Jr. Poster. Third annual Niels Bohr International Academy workshop on ESS science: crossing space and time domains with SAS and QENS, NBI, Univ. Copenhagen, 24–28 June 2013.
232. *Electric field nematic alignment of fluorohectorite clay particles in oligometric matrices*. Z. Rozynek, A. Mikkelsen, R. Castberg, **J.O. Fossum**. Poster. Third annual Niels Bohr International Academy workshop on ESS science: crossing space and time domains with SAS and QENS, NBI, Univ. Copenhagen, 24–28 June 2013.
233. *Synchrotron X-ray Scattering Studies in Cooper-Fluorohectorite*. C. Fonseca, G. Grassi, M. Altoe, G.J. da Silva, L. Michels, R. Droppa Jr., **J.O. Fossum**. Talk. XXXVI Encontro Nacional de Física da Matéria Condensada, Águas de Lindóia, SP, Brazil, 13–17 May 2013.
234. *CO2 adsorption and intercalation in aerogels and clay materials studied by SANS*. P.A. Sobas, K.D. Knudsen, G. Helgesen, A.T. Skjeltorp, H. Mauroy, G.N. Kalantzopoulos, **J.O. Fossum**. Poster. Nordsoft International workshop on Soft matter Physics and Biomembranes, Reykjavik, Iceland, 21–24 May 2013.
235. *A new approach to fabricating Janus and Patchy particles*. Z. Rozynek, P. Dommersnes, R. Castberg, A. Mikkelsen, **J.O. Fossum**. Poster. Nordsoft International workshop on Soft Matter Physics and Biomembranes, Reykjavik, Iceland, 21–24 May 2013.
236. *Structuring of colloidal particles on liquid drops*. P. Dommersnes, Z. Rozynek, A. Mikkelsen, R. Castberg, K. Kjerstad, K. Hersvik, **J.O. Fossum**. Talk (invited). Nordsoft International workshop on Soft Matter Physics and Biomembranes, Reykjavik, Iceland, 21–24 May 2013.
237. *An orientationally ordered glass of soft colloidal platelets*. E.L. Hansen, **J.O. Fossum**. Talk (invited). Nordsoft International workshop on Soft Matter Physics and Biomembranes, Reykjavik, Iceland, 21–24 May 2013.
238. *An orientationally ordered glass of soft colloidal platelets*. E.L. Hansen, **J.O. Fossum**. Talk (invited). 1st NTNU-PAN workshop on Soft and Complex Matter Physics, Warsaw, Institute of Physical Chemistry, Polish Academy of Sciences, 26 April 2013.
239. *Structuring of colloidal particles on liquid drops*. Z. Rozynek, P. Dommersnes, A. Mikkelsen, R. Castberg, **J.O. Fossum**. Talk (invited). 1st NTNU-PAN workshop on Soft and Complex Matter Physics, Warsaw, Institute of Physical Chemistry, Polish Academy of Sciences, 26 April 2013.

240. *A new approach to fabricating Janus and Patchy particles*. Z. Rozynek, P. Dommersnes, R. Castberg, A. Mikkelsen, **J.O. Fossum**. Talk (invited). 1st NTNU-PAN workshop on Soft and Complex Matter Physics, Warsaw, Institute of Physical Chemistry, Polish Academy of Sciences, 26 April 2013.
241. *Supercritical CO2 in aerogels and clay materials studied by small angle neutron scattering*. P.A. Sobas, K.D. Knudsen, G. Helgesen, A.T. Skjeltorp, H. Mauroy, **J.O. Fossum**. Talk. Soft Matter Confinement, Geilo School, 11–21 March 2013.
242. *Dynamic Light Scattering measurements of clay materials in lquid CO2: Preliminary results*. P.A. Sobas, K.D. Knudsen, G. Helgesen, A.T. Skjeltorp, K.J. Måløy, Z. Rozynek, **J.O. Fossum**. Talk. Soft Matter Confinement, Geilo School, 11–21 March 2013.
243. *Dynamics of Humidity uptake by meso- and nano-porous clay*. L. Michels, H. Hemmen, Z. Rozynek, R. Droppa, G.J. da Silva, **J.O. Fossum**. Poster. Soft Matter Confinement, Geilo School, 11–21 March 2013.
244. *Diffusion through layered clay monitored by small angle neutron scattering*. H. Mauroy, K.D. Knudsen, **J.O. Fossum**. Poster. Soft Matter Confinement, Geilo School, 11–21 March 2013.
245. *Humidity Intercalation Processes in Synthetic Nanosilicates by Synchrotron X-ray Scattering*. G. Grassi, L. Michels, R. Droppa, G.J. da Silva, **J.O. Fossum**. Poster. Soft Matter Confinement, Geilo School, 11–21 March 2013.
246. *Dynamics of Humidity in Iron Fluorohectorite*. M.A. Altoé, G. Grassi, C.L.S. Fonseca, L. Michels, R. Droppa, **J.O. Fossum**, G.J. da Silva. Poster. Soft Matter Confinement, Geilo School, 11–21 March 2013.
247. *Intercalation and Retention of Carbon Dioxide in Synthetic Fluorohectorite Clay at near-ambient Conditions*. **J.O. Fossum**, H. Hemmen, T. Plivelic, K. Rustenberg, L. Michels, E. Johnsrud, Z. Rozynek. Talk (invited). 10th Nordic Workshop on Scattering from Soft Matter, Niels Bohr Institute at Copenhagen University, 17–18 January 2013.
248. *Transição do Regime de Hidratação da Níquel-Fluorohectorita por Difração de Raios X Síncrotron*. L. Ribeiro, J.S. de Oliveira, M.S.P. Mundim, M.H. Sousa, G.J. da Silva, **J.O. Fossum**, K.C. Mundim. Talk. QUITEL 2012, Natal – RN, Brazil, 2–7 December 2012.
249. *Carbon dioxide intercalation in a clay at near-ambient conditions*. L. Michels, H. Hemmen, Z. Rozynek, E.G. Rolseth, K.H. Rustenberg, H. Mauroy, D. de Miranda Fonseca, E.L. Hansen, **J.O. Fossum**, T.S. Plivelic. Poster. CLIMIT Seminar, Oslo, Norway, 29–30 November 2012.
250. *Dynamic light scattering measurements of clay materials in liquid CO2: Preliminary results*. P.A. Sobas, K. Knudsen, G. Helgesen, A.T. Skjeltorp, K.J. Måløy, **J.O. Fossum**. Poster. CLIMIT Seminar, Oslo, Norway, 29–30 November 2012.
251. *Active structuring of colloidal armour on liquid drops*. P. Dommersnes, Z. Rozynek, K. Kjerstad, R. Castberg, A. Mikkelsen, K. Hersvik, **J.O. Fossum**. Talk (invited). Mini-Workshop on Complex Flows and Turbulence, 6–7 December 2012, Departamento de Física, Universidade Federal de Pernambuco, Recife, PE, Brazil.
252. *Electric Field Induced Colloidal Assemblies on Drop Interfaces*. P. Dommersnes, K. Kjerstad, A. Mikkelsen, K. Hersvik, R. Castberg, Z. Rozynek, **J.O. Fossum**. Talk. 2012 MRS Fall Meeting & Exhibit, 25–30 November 2012, Hynes Convention Center, Boston, MA, Symposium U: Colloidal Crystals, Quasicrystals, Assemblies, Jammings, and Packings.
253. *Promoting Orientational Order in Soft Solids*. E.L. Hansen, H. Hemmen, P. Dommersnes, **J.O. Fossum**. Poster. 2012 MRS Fall Meeting & Exhibit, 25–30 November 2012, Hynes Convention Center, Boston, MA, SymposiumU: Colloidal Crystals, Quasicrystals, Assemblies, Jammings, and Packings.
254. *Water diffusion studies in layered synthetic nanosilicates studied by synchrotron X-ray scattering G. Grassi*. L.E. Michels, H. Hemmen, R. Droppa Jr., G.J. da Silva, **J.O. Fossum**. Poster. IV International Workshop on Layered Materials. UNICAMP; Campinas, Brasil, 26–28 November 2012.
255. *Dipolar Ordering of Clay Particles in various Carrier Fluids*. Z. Rozynek, H. Mauroy, R.C. Castberg, K.D. Knudsen, **J.O. Fossum**. Talk. MECC 2012, 6th Mid-European Clay Conference, Průhonice, Czech Republic, 4–9 September 2012.

256. *Intercalation Of Carbon Dioxide In A Smectite Clay H. Hemmen*. E. Rolseth, D. de Miranda Fonseca, E. Lindbo Hansen, **J.O. Fossum**, T.S. Plivelic, K.H. Rustenberg. Poster. 4th International Congress, Eurosoil 2012, Bari Italy, 2–6 July 2012.
257. *Evaporation Induced Order In Aqueous Soft Solid Phases Of Clays E. Lindbo Hansen*. H. Hemmen, P. Dommersnes, **J.O. Fossum**. Poster. 4th International Congress, Eurosoil 2012, Bari Italy, 2–6 July 2012.
258. *Soil clay oil suspensions subjected to electric fields*. Z. Rozynek, T. Zacher, M. Caplovicová, M. Janek, **J.O. Fossum**. Poster. 4th International Congress, Eurosoil 2012, Bari Italy, 2–6 July 2012.
259. *Effects of moderate warming on the structure and rheology of a fluorohectorite clay in water E. Lindbo Hansen*. H. Hemmen, D. de Miranda Fonseca, **J.O. Fossum**, C. Coutant, K.D. Knudsen, T.S. Plivelic. Poster. 4th International Congress, Eurosoil 2012, Bari Italy, 2–6 July 2012.
260. *Synchrotron X-Ray Scattering Studies Of Soft Nanostructures In Fluorohectorite Clay*. **J.O. Fossum**, H. Hemmen, E. Lindbo Hansen, Z. Rozynek, D. de Miranda Fonseca, K.D. Knudsen, Y. Méheust. Poster. 4th International Congress, Eurosoil 2012, Bari Italy, 2–6 July 2012.
261. *Clay-Oil drops in electric fields P. Dommersnes*. K. Kjerstad, K. Hersvik, A. Mikkelsen, R. Castberg, Z. Rozynek, **J.O. Fossum**. Talk. International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, 22–25 May 2012.
262. *Soil Clay Oil Suspensions Subjected to Electric Field Z. Rozynek, Tomáš Zacher, Marián Janek Mária Čaplovičová and*. **J.O. Fossum**. Poster. International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, 22–25 May 2012.
263. *Electric field alignement of clay particles P. Sobas*. K.D. Knudsen, G. Helgesen, A. Skjeltorp, K.J. Måløy, **J.O. Fossum**. Poster. International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, 22–25 May 2012.
264. *Swelling transition of a clay induced by heating*. E.L. Hansen, H. Hemmen, D.M. Fonseca, C. Coutant, K.D. Knudsen, T.S. Plivelic, D. Bonn, **J.O. Fossum**. Poster. International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, 22–25 May 2012.
265. *Carbon dioxide intercalation in a clay at near-ambient conditions H. Hemmen*. E.G. Rolseth, K. Rustenberg, D.M. Fonseca, E.L. Hansen, **J.O. Fossum**, T.S. Plivelic. Poster. International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, 22–25 May 2012.
266. *Electric field alignement of clay particles R. Castberg*. Z. Rozynek, K.J. Måløy, **J.O. Fossum**, E. Flekkøy, P. Dommersnes. Poster. International Workshop on Soft Matter Physics & Complex Flows, Lofoten, Norway, 22–25 May 2012.
267. *Dynamics of humidity uptake by meso-, and nano-porous synthetic clay Lithium- Fluorohectorite L. Michels*. G. Grassi, G.J. da Silva, H. Hemmen, **J.O. Fossum**, R. Droppa Jr. Talk. XXXV Encontro Nacional de Física da Matéria Condensada - ENFMC 2012, Águas de Lindóia, SP, Brazil, 14–18 May 2012.
268. *Synchrotron X-Ray Studies of Water Intercalation and Diffusion in Synthetic Clay Lithium-Fluorohectorite G. Grassi*. L. Michels, G.J. da Silva, H. Hemmen, **J.O. Fossum**, R. Droppa Jr. Poster. XXXV Encontro Nacional de Física da Matéria Condensada - ENFMC 2012, Águas de Lindóia, SP, Brazil, 14–18 May 2012.
269. *X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay H. Hemmen*. Y. Méheust, L.R. Alme, **J.O. Fossum**. Poster. Session HS8.3.4: The role of interfaces in flow and transport in porous media, European Geosciences Union General Assembly 2012, Vienna, Austria, 22–27 April 2012.
270. *Clay-based composites for drug delivery: Preliminary studies A. Rivera*. Z. Rozynek, E. Lindbo Hansen, E. Altshuler, **J.O. Fossum**. Poster. International Conference: New materials in the Age of Convergence, Havana, Cuba, 12–16 March 2012.
271. *Clay-oil droplet suspensions in electric field Z. Rozynek*. **J.O. Fossum**, K. Kjerstad, A. Mikkelsen, R. Castberg. Talk (invited). MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, 6–9 March 2012.

272. *Clay-based composites for drug delivery: Preliminary studies A. Rivera*. Z. Rozynek, E. Lindbo Hansen, E. Altshuler, **J.O. Fossum**. Poster. MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, 6–9 March 2012.
273. *Phase separations in PNIPA-Laponite Nanocomposites H. Mauroy*. K.D. Knudsen, **J.O. Fossum**, Z. Rozynek. Poster. MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, 6–9 March 2012.
274. *Self-organization from electrically polarized clay particles Z. Rozynek*. **J.O. Fossum**, K.D. Knudsen, B. Wang, Y. Méheust, R. Castberg. Talk (invited). MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, 6–9 March 2012.
275. *The effect of temperature on the rheology and structure of clay suspensions E. Lindbo Hansen*. H. Hemmen, D.M. Fonseca, C. Coutant, **J.O. Fossum**, K.D. Knudsen, T.S. Plivelic. Poster. MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, 6–9 March 2012.
276. *Anisotropy in PS-clay nanocomposites H. Mauroy*. K.D. Knudsen, **J.O. Fossum**, Z. Rozynek. Talk (invited). MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, 6–9 March 2012.
277. *Carbon dioxide intercalation in Na-fluorohectorite clay at near-ambient conditions*. H. Hemmen, E. Rolseth, D.M. Fonseca, E.L. Hansen, **J.O. Fossum**, T. Plivelic. Poster. MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, 6–9 March 2012.
278. *Using a high-speed camera to study alignement of sodium fluorohectorite R. Castberg*. Z. Rozynek, K.J. Måløy, **J.O. Fossum**, E. Flekkøy. Poster. MarchCOMeeting'12: Complex Matter Physics: Materials, dynamics and patterns, Havana, Cuba, 6–9 March 2012.
279. *Texture evolution of drying clay gel samples*. M.B.L. Santos, G.J. da Silva, P.R.G. Fernandes, **J.O. Fossum**. Poster. 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.
280. *Dynamics of humidity uptake by meso- and nano- porous synthetic clay Lithium-Fluorohectorite*. L.E. Michels, H. Hemmen, G.J. da Silva, **J.O. Fossum**, R. Droppa Jr., G. Grassi. Poster. 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.
281. *The diffusion of vapor inside the mesoporosity of a dry clay H. Hemmen*. Y. Mehesut, L.R. Alme, **J.O. Fossum**. Poster. 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.
282. *Nanostructural alterations and rheology of clay dispersions in response to heating E. Lindbo Hansen*. H. Hemmen, D.M. Fonseca, C. Coutant, K.D. Knudsen, T.S. Plivelic, D. Bonn, **J.O. Fossum**. Poster. 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.
283. *Clay-based composites for drug delivery: Preliminary studies A. Rivera*. Z. Rozynek, E. Lindbo Hansen, E. Altshuler, **J.O. Fossum**. Poster. 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.
284. *CO2 and porous media - SANS*. P.A. Sobas, K.D. Knudsen, G. Helgesen, A. Skjeltorp, **J.O. Fossum**. Poster. 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.
285. *X-ray studies of Carbon Dioxide Intercalation in Na-fluorohectorite Clay at Near-Ambient Conditions H. Hemmen*. E.G. Rolseth, D.M. Fonseca, E.L. Hansen, **J.O. Fossum**, T.S. Plivelic. Poster. 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.
286. *Synthesis and Characterization of Polysterene-Clay nanocomposites H. Mauroy*. K.D. Knudsen, G. Helgesen, **J.O. Fossum**, Z. Rozynek. Poster. 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.

287. *Electro-hydrodynamic and electro-rheological effects in clay-oil droplets P. Dommersnes*. K. Kjerstad, K. Hersvig, A. Mikkelsen, Z. Rozynek, **J.O. Fossum**. Talk (invited). 2nd International Workshop on Complex Physical Phenomena in Materials, Porto de Galinhas – PE, Brazil, 31 January – 3 February 2012.
288. *On the Influence of Interlayer Water Intercalation on the Global Mesoporous Water Transport in a Clay: X-Ray Studies*. H. Hemmen, L.R. Alme, **J.O. Fossum**, Y. Méheust. Talk. Materials Research Society 2011 MRS Fall Meeting, Boston, USA, 28 November – 2 December 2011 Symposium RR6: Dynamics in Porous Media.
289. *Nanostructural Alterations and Rheological Aging of Clay Dispersions in Response to Heating*. E.L. Hansen, H. Hemmen, D.M. Fonseca, C. Coutant, T. Plivelic, K.D. Knudsen, **J.O. Fossum**. Poster. Materials Research Society 2011 MRS Fall Meeting, Boston, USA, 28 November – 2 December 2011, Symposium SS7: Properties and Processes at the Nanoscale.
290. *Controlled Deposition of Clay Nanoplatelets by Fluid Evaporation from Droplets*. H. Hemmen, K. Austad, E.L. Hansen, D. Fonseca. Poster. **J.O. Fossum** Materials Research Society 2011 MRS Fall Meeting, Boston, USA, 28 November – 2 December 2011, Symposium EE9: Self Organization and Nanoscale Pattern Formation.
291. *SAXS-WAXS studies of temperature induced changes in the structure of saline clay suspensions*. H. Hemmen, N.I. Ringdal, E. Novais de Azevedo, M. Engelsberg, E.L. Hansen, Y. Méheust, **J.O. Fossum**, K.D. Knudsen. Poster. International Workshop on Complex Phenomena in Superconductors and Magnetic Systems, Øystese, Hardanger, Norway Aug.29–2 September 2011.
292. *X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay*. H. Hemmen, et.al. Talk. 1st Nordic Workshop on Soft Matter Physics, (Nordforsk network, Århus, Denmark, 28 June – 1 July 2011.
293. *Temperature induced structural alterations of colloidal clay suspensions*. E.L. Hansen, et.al. Talk. 1st Nordic Workshop on Soft Matter Physics, (Nordforsk network, Århus, Denmark, 28 June – 1 July 2011.
294. *Experimental studies of structured organoclays in electric field*. Z. Rozynek, et.al. Talk. Bi-annual meeting of the Norwegian Physical Society, Oslo, Norway, 20–22 June 2011.
295. *Electric field induced rotation of Clay particles*. Z. Rozynek, R. Castberg, **J.O. Fossum**, K.J. Måløy, E.G. Flekkøy. Poster. Cooperative Phenomena in Flows, International Advanced Study School, Bardøla Høyfjellshotell, Geilo, Norway, 4–14 April 2011.
296. *Simultaneous XRD and EXAFS measurements of water diffusion in synthetic Ni-Fluorohectorite*. L.E. Michels, L. Ribeiro, M.S.P. Mundim, M.H. Sousa, **J.O. Fossum**, G.J. da Silva, K.C. Mundim. Poster. Cooperative Phenomena in Flows, International Advanced Study School, Bardøla Høyfjellshotell, Geilo, Norway, 4–14 April 2011.
297. *Studies of water intercalation and diffusion in nanosilicates by means of XAFS technique*. L.Ribeiro, L.E. Michels, M.S.P. Mundim, M.H. Sousa, **J.O. Fossum**, G.J. da Silva, K.C. Mundim. Poster. Cooperative Phenomena in Flows, International Advanced Study School, Bardøla Høyfjellshotell, Geilo, Norway, 4–14 April 2011.
298. *WAXS studies of Clay/Paraffin Composites*. Z. Rozynek, R. Castberg, A. Mikkelsen, D. Chernyshov, **J.O. Fossum**, K.J. Måløy. Poster. Cooperative Phenomena in Flows, International Advanced Study School, Bardøla Høyfjellshotell, Geilo, Norway, 4–14 April 2011.
299. *SAXS-WAXS studies of temperature induced changes in the structure of saline clay suspensions*. E.L. Hansen, H. Hemmen, D. de Miranda Fonseca, K.D. Knudsen, **J.O. Fossum**. Talk. 8th Nordic Workshop on Scattering from Soft Matter, IFE-Kjeller, Norway, 26–27 January 2011.
300. *Phase separations in PNIPA-Laponite Nanocomposites*. H. Mauroy, Z. Rozynek, K.D. Knudsen, **J.O. Fossum**. Talk. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
301. *The rheology of quick clays – Implications for landslides of clayey soils*. Y. Méheust, A. Khaldoun, P. Møller, A. Fall, G. Wegdam, B. de Leeuw, **J.O. Fossum**, D. Bonn. Talk. International Workshop on

Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.

302. *Temperature induced changes in the structure of saline clay suspensions*. E.L. Hansen, H. Hemmen, D. de Miranda Fonseca, C. Coutant, K.D. Knudsen, T. Plivelic, **J.O. Fossum**. Talk. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
303. *X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay*. H. Hemmen, L.R. Alme, **J.O. Fossum**, Y. Méheust. Talk. Int. Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
304. *Electric Field Induced Rotation of Clay Particles*. Z. Rozynek, **J.O. Fossum**, R. Castberg, K.J. Måløy, E.G. Flekkøy. Talk. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
305. *Fluid imbibition in paper fibers: Precursor front*. E.N. de Azevedo, L.R. Alme, M. Engelsberg, **J.O. Fossum**, P. Dommersnes. Poster. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
306. *Colloidal platelet self-organization from solvent evaporation*. E.L. Hansen, H. Hemmen, **J.O. Fossum**. Poster. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
307. *Phase diagram of polydisperse Na-fluorohectorite-water suspensions: A synchrotron small-angle X-ray scattering study*. D. de Miranda Fonseca, Y. Méheust, K.D. Knudsen, **J.O. Fossum**. Poster. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
308. *The Isotropic-Nematic interface in suspensions of Na-fluorohectorite synthetic clay*. H. Hemmen, N.I. Ringdal, E.N. De Azevedo, M. Engelsberg, E.L. Hansen, Y. Méheust, **J.O. Fossum**, K.D. Knudsen. Poster. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
309. *Diffusion through layered clay monitored by small angle neutron scattering*. H. Mauroy, K.D. Knudsen, **J.O. Fossum**. Poster. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
310. *Electric Field Induced Structuring of Modified Na-fluorohectorite Clay Particles*. Z. Rozynek, **J.O. Fossum**, B. Wang, K.D. Knudsen. Poster. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
311. *Confined water molecules in layered structures*. R.P. Tenório, M. Engelsberg, **J.O. Fossum**, G.J. da Silva. Poster. International Workshop on Complex Physical Phenomena in Materials, Golden Tulip Recife Palace Hotel, Recife-PE, Brazil, 14–17 December 2010.
312. *CO2 interaction with porous structures: Use of Scattering methods*. K.D. Knudsen, G. Helgesen, **J.O. Fossum**, A. Skjeltorp. Talk. International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 7–10 December 2010.
313. *Colloidal platelet self-organization from solvent evaporation*. E.L. Hansen, H. Hemmen, **J.O. Fossum**. Talk. International Workshop on CO2 and Fluids in Nanoscience, Int. Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 7–10 December 2010.
314. *X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay*. H. Hemmen, L.R. Alme, **J.O. Fossum**, Y. Méheust. Talk. International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 7–10 December 2010.
315. *Electric Field Induced Structuring of Modified Na-fluorohectorite Clay Particles*. Z. Rozynek, **J.O. Fossum**, B. Wang, K.D. Knudsen. Talk. International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 7–10 December 2010.

316. *Diffusion through layered clay monitored by small angle neutron scattering*. H. Mauroy, K.D. Knudsen, **J.O. Fossum**. Poster. International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 7–10 December 2010.
317. *Electric Field Induced Rotation of Clay Particles*. Z. Rozynek, **J.O. Fossum**, R. Castberg. Poster. K J Måløy AND E G Flekkøy, International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 7–10 December 2010.
318. *Phase diagram of polydisperse Na-fluorohectorite-water suspensions: A synchrotron small-angle X-ray scattering study*. D. de Miranda Fonseca, Y. Méheust, K.D. Knudsen, **J.O. Fossum**. Poster. International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 7–10 December 2010.
319. *The Isotropic-Nematic interface in suspensions of Na-fluorohectorite synthetic clay*. H. Hemmen, N.I. Ringdal, E.N. De Azevedo, M. Engelsberg, E.L. Hansen, Y. Méheust, **J.O. Fossum**, K.D. Knudsen. Poster. International Workshop on CO2 and Fluids in Nanoscience, International Center for Condensed Matter Physics (ICCMP), Universidade of Brasília (UnB), Brasília-DF, Brazil, 7–10 December 2010.
320. *Temperature-induced Positional Ordering in Colloidal Liquid Crystals*. H. Hemmen, E.L. Hansen, D. de Miranda Fonseca, C. Coutant, M. Sigstad, **J.O. Fossum**. Talk. Materials Research Society 2010 MRS Fall Meeting, Boston, USA, 29 November – 3 December 2010, Symposium L: Liquid-Crystal Materials--Beyond Displays.
321. *Orientational Ordering in Aqueous Clay Gels and/or Glasses*. E.L. Hansen, H. Hemmen, **J.O. Fossum**. Poster. Materials Research Society 2010 MRS Fall Meeting, Boston, USA, 29 November – 3 December 2010, Symposium EE: Solid State Chemistry of Inorg. Mat. VIII.
322. *Intercalated Water in Synthetic Lithium-fluorohectorite Clay*. R.P. Tenorio, M. Engelsberg, **J.O. Fossum**, G.J. da Silva. Poster. Materials Research Society 2010 MRS Fall Meeting, Boston, USA, 29 November – 3 December 2010, Symposium EE: Solid State Chemistry of Inorganic Materials VIII.
323. *Electric-field Induced Alignment of Modified Na-fluorohectorite Clay Particles*. Z. Rozynek, B. Wang, **J.O. Fossum**. Poster. Materials Research Society 2010 MRS Fall Meeting, Boston, USA, 29 November – 3 December 2010, Symposium EE: Solid State Chemistry of Inorganic Materials VIII.
324. *Electric-field induced alignment of modified Na-fluorohectorite clay particles*. Z. Rozynek, B. Wang, **J.O. Fossum**. Talk. 5th Mid-European Clay Conf. (MECC2010) . Budapest, Hungary, 25–29 August 2010.
325. *Fluid imbibition in paper fibers: Precursor front*. E.N. de Azevedo, L.R. Alme, M. Engelsberg, **J.O. Fossum**, P. Dommersnes, H. Hemmen. Poster. Gordon Research Conference on Flow and Transport in Permeable Media, 10–16 July 2010, Bates College, Lewiston, ME, USA.
326. *X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay*. H. Hemmen, L.R. Alme, **J.O. Fossum**, Y. Méheust. Poster. Gordon Research Conf. on Flow and Transport in Permeable Media, 10–16 July 2010, Bates College, Lewiston, ME, USA.
327. *Volume Fraction Versus Order In Nematic Fluorohectorite Dispersions*. E.L. Hansen, H. Hemmen, **J.O. Fossum**. Poster. 2010-Trilateral Meeting on Clays (2010TMC-CSSJ-CMS). Seville, Spain, 6–11 June 2010.
328. *Flow Induced Ordering In Na-Fluorohectorite Dispersion*. H. Hemmen, E.L. Hansen, E.V. Blindheim, **J.O. Fossum**. Poster. 2010-Trilateral Meeting on Clays (2010TMC-CSSJ-CMS). Seville, Spain, 6–11 June 2010.
329. *Photothermal studies of hydration pro-cess in nanolayered synthetic silicate*. G.J. da Silva, M.A. Amato, **J.O. Fossum**. Poster. XXXIII Encontro Nacional de Física da Matéria Condensada (ENFMC) da Sociedade Brasileira de Física, Águas de Lindóia (SP), Brasil, de, 10–14 May 2010.
330. *The Isotropic-Nematic Interface in Suspensions of Na-fluorohectorite Synthetic Clay*. H. Hemmen, N.I. Ringdal, E.N. De Azevedo, M. Engelsberg, E.L. Hansen, Y. Méheust, **J.O. Fossum**, K.D. Knudsen. Talk. Seventh Nordic Workshop on Scattering from Soft Matter . Helsinki, Finland, 27–28 January 2010.

331. *X-ray Scattering Study of a Clay/Gelatine Hybrid Electrorheological Elastomer*. B. Wang, Z. Rozynek, T.S. Plivelic, **J.O. Fossum**. Poster. Seventh Nordic Workshop on Scattering from Soft Matter, Helsinki, Finland, 27–28 January 2010.
332. *Wide Angle X-Ray Scattering Studies of Guided Assembled Organoclay Electro-rheological Suspensions*. B. Wang, Z. Rozynek, T.S. Plivelic, **J.O. Fossum**. Talk. Materials Research Society 2009 MRS Fall Meeting, Boston, USA, 30 November – 4 December 2009, Symposium QQ: Responsive Gels and Biopolymer Assemblies, Paper number QQ5.10, 1 December 2009.
333. *Roughness of Fracture Surfaces in a Model Nanosilicate Gel Determined from Magnetic Resonance Imaging*. H. Hemmen, E.N. de Azevedo, C.A. Nielsen, K. Magnus, R.E. de Souza, M. Engelsberg, **J.O. Fossum**. Poster. Materials Research Society 2009 MRS Fall Meeting, Boston, USA, 30 November – 4 December 2009, Symposium FF: Mechanical Behavior of Nanomaterials-Experiments and Modeling.
334. *Fast Speed Camera Imaging and Synchrotron X-ray Studies of Dynamic Structuring from Nano-layered Clay Particles*. Z.J. Rozynek, **J.O. Fossum**, B. Wang, R. Castberg, K.J. Maloy. Poster. Materials Research Society 2009 MRS Fall Meeting, Boston, USA, 30 November – 4 December 2009, Symposium MM: Ultrafast Processes in Materials Science.
335. *Structural Changes in Polymer/Clay Melted Nanocomposites Induced by Electric Field: Synchrotron X-ray Studies of Structure Dynamics and Rheology*. T.S. Plivelic, S.M.L. Silva, E.N. de Azevedo, G.J. da Silva, Z. Rozynek, B. Wang, **J.O. Fossum**. Poster. Materials Research Society 2009 MRS Fall Meeting, Boston, USA, 30 November – 4 December 2009, Symposium QQ: Responsive Gels and Biopolymer Assemblies.
336. *X-ray Scattering Study of a Clay/Gelatine Hybrid Electrorheological Elastomer*. B. Wang, Z. Rozynek, T.S. Plivelic, **J.O. Fossum**. Poster. Materials Research Society 2009 MRS Fall Meeting, Boston, USA, 30 November – 4 December 2009, Symposium QQ: Responsive Gels and Biopolymer Assemblies.
337. *Highly Ordered Nematic Phases and Emerging Positional Ordering of Nanosized Clay Platelets in Water*. E.L. Hansen, N.I. Ringdal, B.M. Kjelling, H. Hemmen, **J.O. Fossum**, E. Novais de Azevedo, M. Engelsberg, Y. Méheust, C. Kim, S. Marathe, I.W. Cho, D.Y. Noh. Poster. Materials Research Society 2009 MRS Fall Meeting, Boston, USA, 30 November – 4 December 2009, Symposium QQ: Responsive Gels and Biopolymer Assemblies.
338. *Electric field manipulation of polymer nanocomposite morphologies*. T.S. Plivelic, Z. Rozynek, S.M.L. Silva, B. Wang, E.N. de Azevedo, G.J. da Silva, **J.O. Fossum**. Poster. Maxlab 22nd Annual User Meeting, Scandic Star, Lund, Sweden, 2–3 November 2009.
339. *Magnetic field effects on liquid crystalline phases in the synthetic clay Na-Fluorohectorite studied by synchrotron SAXS*. E.L. Hansen, H. Hemmen, **J.O. Fossum**. Poster. SAS2009, XIV International Conference on Small-Angle Scattering, Oxford, UK, 13–18 September 2009.
340. *Electric field manipulation of polymer nanocomposite morphologies*. T.S. Plivelic, Z. Rozynek, S.M.L. Silva, B.-X. Wang, E.N. de Azevedo, G.J. da Silva, **J.O. Fossum**. Poster. SAS 2009, XIV International Conference on Small-Angle Scattering, Oxford, UK, 13–18 September 2009.
341. *SAXS Studies of Highly Ordered Nematic Phases in Aqueous Dispersions of Sodium-Fluorohectorite Nanodiscs*. E.L. Hansen, N.I. Ringdal, B.M. Kjelling, H. Hemmen, **J.O. Fossum**, E. Novais de Azevedo, M. Engelsberg, Y. Méheust, C. Kim, S. Marathe, I.W. Cho, D.Y. Noh. Poster. SAS2009, XIV International Conference on Small-Angle Scattering, Oxford, UK, 13–18 September 2009.
342. *Small Angle X-ray Scattering Studies of Double Responsive Co Doped TiOx Nanorods*. B. Wang, Z. Rozynek, H. Hemmen, E.L. Hansen, **J.O. Fossum**. Talk. ChinaNANO 2009, Beijing, China, 1–3 September 2009.
343. *Electrorheological Properties of Organically Modified Nanolayered Laponite: Influence of Intercalation: Adsorption and Wettability*. B. Wang, M. Zhou, Z. Rozynek, **J.O. Fossum**. Talk. 2nd International Conference on Smart Materials and Nanotechnology in Engineering, Weihai, China, 8–11 July 2009.
344. *Structural Changes in Polymer/Clay Melted Nanocomposites Induced by Electric Fields*. T.S. Plivelic, S.M.L. Silva, Z. Rozynek, B. Wang, E.N. De Azevedo, G.J. da Silva, **J.O. Fossum**. Poster. 14th

International Clay Conference, Castellaneta M., Italy, 14–20 June 2009 Session NM7: Polymer-clay nanocomposites: preparation techniques and theoretical formulations.

345. *Wide Angle Scattering Study of a Clay/Gelatin Electrorheological Elastomer*. B. Wang, Z. Rozynek, M. Zhou, **J.O. Fossum**. Poster. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session NM7: Polymer-clay nanocomposites: preparation techniques and theoretical formulations.
346. *Quickclay and Landslides of Clayey Soils*. A. Khaldoun, P. Moller, G. Wegdam, B. De Leeuw, Y. Méheust, **J.O. Fossum**, D. Bonn. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session GG5: Clays in Geological Processes.
347. *Electrorheological Properties of Organically Modified Laponite Intercalation: Adsorption and Wettability*. B. Wang, M. Zhou, Z. Rozynek, **J.O. Fossum**. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session CE4: Colloids & Rheology.
348. *Humidity Transport in Quasi One-Dimensional Na- Fluorohectorite Powders*. L.R. Alme, Y. Méheust, **J.O. Fossum**. Poster. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session HE5: Moisture transport through clay.
349. *NMR Spectroscopy studies of Water Intercalation in Na-fluorohectorite*. R.P. Tenório, L.R. Alme, M. Engelsberg, **J.O. Fossum**, F. Hallwass. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session UM3: General topics.
350. *Roughness of Fractures in Laponite Gels Determined from Magnetic Resonance Imaging*. H. Hemmen, E.N. De Azevedo, C.A. Nielsen, K. Magnus, R.E. de Souza, M. Engelsberg, **J.O. Fossum**. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session CE5: Desiccation and Fracture in Clay.
351. *Phase Diagram of Polydisperse Na-fluorohectorite-Water Suspensions: A Synchrotron Small Angle X-Ray Scattering Study*. D.M. Fonseca, Y. Méheust, **J.O. Fossum**, K.D. Knudsen. Poster. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro.
352. *Electrorheological Behaviour of Nematically Phase Separated Na-Fluorohectorite*. B. Wang, Z. Rozynek, H. Hemmen, E.L. Hansen, **J.O. Fossum**. Poster. 14th International Clay Conference,Castellaneta M., Italy, 14–20 June 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro.
353. *Self-Assembly and Dynamics of Clay Platelets in a Magnetic Field*. E.N. De Azevedo, M. Engelsberg, **J.O. Fossum**, R.E. de Souza. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro.
354. *Isotropic-Nematic Interfaces in Suspensions of Na-Fluorohectorite Synthetic Clay-Order, Orientation and Magnetic Field Response*. H. Hemmen, N. Ringdal, E. Novais de Azevedo, E. Lindbo Hansen, M. Häger, Y. Méheust, **J.O. Fossum**, M. Engelsberg, K.D. Knudsen. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro.
355. *Highly Ordered Nematic Phases and Emerging Positional Ordering in Aqueous Dispersions of Na-Fluorohectorite*. E.L. Hansen, N.I. Ringdal, B.M. Kjelling, H. Hemmen, **J.O. Fossum**, E.N. De Azevedo, M. Engelsberg, Y. Méheust, C. Kim, S. Marathe, I.W. Cho, D.Y. Noh. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro.
356. *Wide Angle X-Ray Scattering Studies of Guided Assembled Organoclay Electrorheological Suspensions*. B. Wang, Z. Rozynek, M. Zhou, **J.O. Fossum**. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session CE7: Modified Clays & New Applications.
357. *Dynamic Column Formation of Na-Fluorohectorite Clay Particles: Wide Angle X-Ray Scattering and Rheological Studies*. Z. Rozynek, B. Wang, M. Zhou, **J.O. Fossum**. Talk. 14th International Clay Conference, Castellaneta M., Italy, 14–20 June 2009, Session NM8: Self-assembly from Clay Particles: From Nano to Macro.

358. *Self-similarity structures in clay gel samples induced by a controlable aging effect*. M.B.L. Santos, G.J. da Silva, M.H. Souza, P.R.G. Fernandes, **J.O. Fossum**. Talk. Encontro Nacional de Física da Matéria Condensada (ENFMC) da Sociedade Brasileira de Física, Águas de Lindóia (SP), Brasil, 11–15 May 2009.
359. *Room Temperature studies of the relative humidity in synthetic clays by means of synchrotron XRD technique*. L.E. Michels, M.S.P. Mundim, G.J. da Silva, M.H. de Sousa, L. Ribeiro, **J.O. Fossum**. Poster. Encontro Nacional de Física da Matéria Condensada (ENFMC)da Sociedade Brasileira de Física, Águas de Lindóia (SP), Brasil, 11–15 May 2009.
360. *Studies of water diffusion and intercalation in synthetic nanosilicates by means of EXAFS technique*. F.G. Lacerda, M.S.P. Mundim, G.J. da Silva, M.H. de Sousa, **J.O. Fossum**. Poster. Encontro Nacional de Física da Matéria Condensada (ENFMC) da Sociedade Brasileira de Física, Águas de Lindóia (SP), Brasil, 11–15 May 2009.
361. *WAXS and Rheological Studies of Dynamic Column Formation in Na-FLHC Clay Particles*. Z. Rozynek, B. Wang, M. Zhou, **J.O. Fossum**. Talk (invited). 6th Nordic Workshop on Scattering from Soft Matter, University of Århus, Denmark, 28–29 January 2009.
362. *Structural changes in polymer/clay melted nanocomposites induced by electric fields*. T.S. Plivelic, S.M.L. Silva, Z. Rozynek, B.-X. Wang, E.N. de Azevedo, G.J. da Silva, **J.O. Fossum**. Poster. 6th Nordic Workshop on Scattering from Soft Matter, University of Århus, Denmark, 28–29 January 2009.
363. *Isotropic-Nematic Interfaces In Suspensions of Na-Fluorohectorite Synthetic Clay*. H. Hemmen, N.I. Ringdal, E.N. De Azevedo, E.L. Hansen, M. Häger, Y. Méheust, **J.O. Fossum**, M. Engelsberg, K.D. Knudsen. Poster. 6th Nordic Workshop on Scattering from Soft Matter, University of Århus, Denmark, 28–29 January 2009.
364. *Liquid Crystalline Ordering In Gravitationally Settled And Evaporating Aqueous Dispersions Of Clay Nanoplatelets Studied By Small Angle X-Ray Scattering*. E.L. Hansen, E.N. De Azevedo, Y. Méheust, H. Hemmen, B.M. Kjelling, **J.O. Fossum**, D.Y. Noh, C. Kim, S. Marathe, I.W. Cho, M. Engelsberg. Poster. 6th Nordic Workshop on Scattering from Soft Matter, University of Århus, Denmark, 28–29 January 2009.
365. *Small Angle X-ray Scattering Studies of Double Responsive Co Doping TiOx Nanorods*. B. Wang, Z. Rozynek, H. Hemmen, E.L. Hansen, **J.O. Fossum**. Poster. 6th Nordic Workshop on Scattering from Soft Matter, Univ. Århus, Denmark, 28–29 January 2009.
366. *Guided Self-assembly of Nanostructured Titanium Oxide B. Wang*. M. Zhou, Z. Rozynek, **J.O. Fossum**. Talk (invited). Materials Research Society 2008 MRS Fall Meeting, 1–5 December 2008, Boston, MA, USA, Symposium V:Materials, Devices, and Characterization for Smart Systems, Paper number V3.5, 2 December 2008.
367. *The Isotropic-Nematic Interface in Suspensions of Na-Fluorohectorite Synthetic Clay*. H. Hemmen, N.I. Ringdal, E.N. de Azevedo, E.L. Hansen, Y. Méheust, **J.O. Fossum**, M. Engelsberg, K.D. Knudsen. Poster. Materials Research Society 2008 MRS Fall Meeting, 1–5 December 2008, Boston, MA, USA, Symposium CC: Design, Fabrication, and Self Assembly of -Patchy- and Anisometric Particles.
368. *Dynamic Chain-formation of Na-Fluorohectorite Clay Particles: Wide Angle X-ray Scattering and Electrorheometry results*. Z. Rozynek, B. Wang, M. Zhou, **J.O. Fossum**. Talk. 11th conference on Electrorheological Fluids and Magnetorheological Suspensions, Dresden, Germany, 25–29 August 2008.
369. *Wide Angle Scattering Study of Clay/gelatin Electrorheological Elastomer*. B. Wang, Z. Rozynek, M. Zhou, **J.O. Fossum**. Poster. 11th conference on Electrorheological Fluids and Magnetorheological Suspensions, Dresden, Germany on, 25–29 August 2008.
370. *Guided self-assembly of nanostructured titanium oxide*. B. Wang, M. Zhou, Z. Rozynek. Talk. **J.O. Fossum** The International MRS 2008 Conference Beijing AAA Satellite Meeting on Advanced Technologies for Advanced Characterizations of Advanced Materials, Institute of Physics Chinese Academy of Sciences, Beijing, China, 15–18 June 2008.

371. *Self-assembly of Silver Oxide Nanoparticles to Micro-spindles, Micro-rices and Micro-dendrites*. M. Zhou, B. Wang, Z. Rozynek, **J.O. Fossum**. Poster. Session F 19: Functional Ceramics, Materials Research Society (MRS) International Materials Research Conf., Chongqing, China, 9–12 June 2008.
372. *Guided Selfassembly of Titanium Oxide Nanowires and Nanorods*. B. Wang, M. Zhou, Z. Rozynek, **J.O. Fossum**. Talk. Nanotech 2008, Boston, USA, 1–5 June 2008.
373. *Stimulated Self-assembly from Clay Nanoplatelets*. **J.O. Fossum** et.al. Poster. Nanotech 2008, Boston, USA, 1–5 June 2008.
374. *Mesoscopic changes of a model clay soil due to the microscopic swelling of its crystallites*. Y. Méheust, **J.O. Fossum**, K.D. Knudsen, K.J. Måløy, G. Helgesen. Talk. European Geosciences Union, General Assembly 2008, Vienna, Austria, 13–18 April 2008.
375. *Transport of water in a weakly-hydrated model clay soil*. L.R. Alme, **J.O. Fossum**, Y. Méheust. Poster. European Geosciences Union, General Assembly 2008, Vienna, Austria, 13–18 April 2008.
376. *Wide Angle Scattering Study of Organic Modified Fluorohectorite Electrorheological Suspensions*. B. Wang, Z. Rozynek, M. Zhou, **J.O. Fossum**. Talk. 5th Nordic Workshop on Scattering from Soft Matter at NTNU in Trondheim, Norway, 6–7 February 2008.
377. *Wide Angle Scattering Studies of Dynamic Chain Formation in Na-FLHC*. Z. Rozynek, B. Wang, **J.O. Fossum**. Poster. 5th Nordic Workshop on Scattering from Soft Matter at NTNU in Trondheim, Norway, 6–7 February 2008.
378. *Utilizing WAXS to characterize the orientation distribution of clay assemblies - application to electro-rheological suspensions and weakly-hydrated samples*. Y. Méheust, **J.O. Fossum**, K.D. Knudsen, K.P.S. Pamar, K.J. Måløy, G. Helgesen. Talk. 5th Nordic Workshop on Scattering from Soft Matter at NTNU in Trondheim, Norway, 6–7 February 2008.
379. *X-Ray Studies of Intercalation and Diffusion in Nanosilicates: a relationship between Experiment and Simulation*. G.J. da Silva, L. Ribeiro, M.H. Sousa, **J.O. Fossum**, M.S.P. Mundim, K.C. Mundim. Poster. VI Encontro da SBPMat (Sociedade Brasileira de Pesquisa em Materiais), Natal-RN, Brasil, 28 October – 1 November 2007.
380. *Small angle scattering and AFM study of organic modified laponite nanoparticles*. B.X. Wang, M. Zhou, **J.O. Fossum**. Poster. Veeco Scandinavian Conference & Users Meeting: Developments in Atomic Force Microscopy for advanced imaging techniques At Royal Institute of Technology (KTH), Department of Surface Chemistry, Stockholm, Sweden, 24–25 October 2007.
381. *Geometry and Dynamics of Adsorbed Water in Na-Fluorohectorite Clay Hydrates*. R.P. Tenorio, L.R. Alme, M. Engelsberg, **J.O. Fossum**, F. Hallwass. Poster. EUROMAR Magnetic Resonance Conference, Tarragona, Spain, 1–6 July 2007.
382. *Evaporating droplets of nanoparticle suspensions*. A. Gmira, H.S. Bjørnsen, P. Dommersnes, **J.O. Fossum**. Talk. The COMPLEX conference, Bergen, Norway, 8 June 2007.
383. *An electrorheological study of clay nanoparticles suspendend in oil*. B. Schelderupsen, **J.O. Fossum**. Poster. Research Council of Norway Nanomat Conference, Bergen, Norway, 5-7 June,2007.
384. *Guided self-assembly of nanoparticles in electric fields: Nanostructured electrorheology*. H. Rødal, S.Å. Slungård, A. Gmira, **J.O. Fossum**. Poster. Research Council of Norway Nanomat Conference, Bergen, Norway, 5–7 June 2007.
385. *Electric Polarization and Chain Formation of Nano-Layered Particles*. **J.O. Fossum**, Y. Méheust, K.P.S. Parmar, K.D. Knudsen, K.J. Måløy, D. de Miranda Fonseca. Poster. Research Council of Norway Nanomat Conference, Bergen, Norway, 5-7 June,2007.
386. *Temperature investigations of water diffusion in synthetic nano-silicates by means of DXAS*. G.J. da Silva, L. Ribeiro, M.S.P. Mundim, **J.O. Fossum**, K.C. Mundim. Talk. Reunião anual de usuários do LNLS– Campinas – SP. Brasil, 20–21 February 2007.
387. *Spontaneous and guided self-assembly of clay nanoplatelets*. **J.O. Fossum**, Y. Méheust, K.P.S. Parmar, K.D. Knudsen, K.J. Måløy, D. de Miranda Fonseca. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.

388. *WAXS studies of water transport in a layered synthetic silicate*. L.R. Alme, **J.O. Fossum**, Y. Méheust, NTNU. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.
389. *SANS and SAXS Investigations of Colloidal Dispersions of Clay Nanoplatelets and Magnetic Nanoparticles*. F.L.O. Paula, J. Depeyrot, G.J. da Silva, R. Aquino, F.A. Tourinho, **J.O. Fossum**, K.D. Knudsen. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.
390. *Optical trapping and microrheology in complex fluids*. B. Sandnes, M. Buchanan, K.J. Måløy, G. Helgesen, **J.O. Fossum**. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.
391. *Water-Na-Fluorohectorite interactions: An AFM study*. A. Gmira, **J.O. Fossum**. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.
392. *Laponite nanoparticle droplet evaporation on a glass surface: "The coffee stain effect" studied by AFM*. A. Gmira, **J.O. Fossum**, H.S. Bjørnsen. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.
393. *Mesoscopic structure of dried-pressed clay samples from SAXS measurements*. Y. Méheust, S. Dagois-Bohy, **J.O. Fossum**, K. Knudsen. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.
394. *The porous space inside bundles of polarized phyllo-silicate crystallites – A SAXS stud*. K.S.P. Parmar, Y. Méheust, **J.O. Fossum**, K.D. Knudsen, K.J. Maløy, D. de Miranda Fonseca. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.
395. *Phase behavior of platelet-shaped nanosilicate colloids in saline solutions; a SAXS study, D. de M. Fonseca*. Y. Méheust, **J.O. Fossum**, K.D. Knudsen, K.J. Måløy, K. Parmar. Talk. Norwegian Physical Society: Annual Meeting of The Division for Condensed Matter Physics with Atomic Physics, Wadahl (Norway), 13–15 September 2006.
396. *Temperature investigations of intercalation and diffusion processes in synthetic nano-silicates by means of synchrotron X-ray absorption spectroscopy*. L. Ribeiro, M.S.P. Mundim, G.J. da Silva, **J.O. Fossum**, K.C. Mundim. Talk. International Conference on Electronic Spectroscopy and Structure, Foz do Iguaçu, Brazil, 28 August – 1 September 2006.
397. *Difusão anisotrópica e ordenamento ordenacional na fase gel de uma suspensão coloidal de fluorhectorita*. E.N. de Azevedo, M. Engelsberg, **J.O. Fossum**, R.E. de Souza. Talk. IX Jornada Brasileira de Ressonância Magnética, Recife, Pernambuco Brasil, 8–11 August 2006.
398. *Spontaneous and guided self-assembly of clay nanoplatelets*. **J.O. Fossum**, Y. Méheust, K.P.S. Parmar, K.D. Knudsen, K.J. Måløy, D.M. Fonseca. Poster. Proc. YITP Workshop; Struct. and Dynamics in Soft Matter–Beyond Self-Organization and Hierarchical Structures, Kyoto (Japan), July 2006.
399. *SANS and SAXS Investigations of Colloidal Dispersions of Clay Nanoplatelets and Magnetic Nanoparticles*. F.L.O. Paula, J. Depeyrot, G.J. da Silva, R. Aquino, F.A. Tourinho, **J.O. Fossum**, K.D. Knudsen. Talk. The International Conference on Small Angle Scattering, Kyoto, (Japan), July 2006.
400. *SAXS study of the positional order in a colloidal solution of fluorohectorite clay at different temperatures*. D. de Miranda Fonseca, Y. Méheust, **J.O. Fossum**, K.D. Knudsen. Talk. The International Conference on Small Angle Scattering, Kyoto, (Japan), July 2006.
401. *Nematic ordering of platelet-shaped nanosilicate colloids in saline solutions*. D. de Miranda Fonseca, Y. Méheust, **J.O. Fossum**, K.D. Knudsen, K.J. Måløy, K. Parmar. Talk. The International Conference on Small Angle Scattering, Kyoto, (Japan), July 2006.
402. *Mesoscopic structure of dried-pressed clay samples from SAXS measurements*. Y. Méheust, S. Dagois-Bohy, **J.O. Fossum**, K.D. Knudsen. Talk. The International Conference on Small Angle Scattering, Kyoto, (Japan), July 2006.

403. *A small angle scattering study of the porous space inside bundles of polarized clay particles*. K.S.P. Parmar, Y. Méheust, **J.O. Fossum**, K.D. Knudsen, K.J. Maloy, D. de Miranda Fonseca. Talk. The International Conference on Small Angle Scattering, Kyoto, (Japan), July 2006.
404. *From Self-Organization of Nanoparticles to Advanced and Smart Materials*. **J.O. Fossum**. Talk. Research Council of Norway, Nanomat Conference, Oslo (Norway), June 2006.
405. *Study of individual Na-fluorohectorite particles, size, morphology and atomic structure*. A. Gmira, **J.O. Fossum**. Talk. Groupe francais des argiles GFA - Clay Minerals Society CMS Clay Conf., Ile d'Oleron, (France) June 2006.
406. *Water Na-fluorohectorite interactions; An AFM study*. A. Gmira, **J.O. Fossum**. Talk. Groupe francais des argiles GFA - Clay Minerals Society CMS Clay Conf., Ile d'Oleron, (France) June 2006.
407. *Polarization and aggregation of clay particles suspended in oil - a study using x-ray scattering*. Y. Méheust, K.P.S. Parmar, **J.O. Fossum**, K.D. Knudsen, K.J. Måløy, D. de Miranda Fonseca. Talk. Groupe francais des argiles GFA - Clay Minerals Society CMS Clay Conference, Ile d'Oleron, (France) June 2006.
408. *Electro-rheology of smectite clay suspensions submitted to a strong electric field*. K.P.S. Parmar, Y. Méheust, **J.O. Fossum**. Talk. Groupe francais des argiles GFA - Clay Minerals Society CMS Clay Conference, Ile d'Oleron, (France) June 2006.
409. *Experimental investigations of dispersion of clays and magnetic nanoparticles*. F.L.O. Paula, J. Depeyrot, G.J. da Silva, R. Aquino, F.A. Tourinho, **J.O. Fossum**, K. Knudsen. Talk. Groupe francais des argiles GFA - Clay Minerals Society CMS Clay Conference, Ile d'Oleron, (France) June 2006.
410. *Water Na-fluorohectorite interactions; A microscopical study*. A. Gmira, **J.O. Fossum**. Talk. Nanotechnology in Northern Europe, Helsinki (Finland) May 2006.
411. *Intercalation studies of nano-silicates utilizing the self-consistent x-ray scattering model and GSA*. L. Ribeiro, K.C. Mundim, M.S.P. Mundim, D.S. De Vasconcelos, G.J. da Silva, **J.O. Fossum**. Talk. XXIX Encontro Nacional de Física da Matéria Condensada, 2006, São Lourenço-MG, (Brazil) May 2006.
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