

About the Symposium

Welcome to the sixteenth Chemistry in the Oil Industry Symposium, organised by the Royal Society of Chemistry's Speciality Chemicals Sector group with continued valued support from the European Oilfield Speciality Chemicals Association. The symposium is a technical conference focussed on all parts of the oil and gas industry (upstream, midstream and downstream) where chemistry is the central theme. With the industry adjusting to the "new normal" the focus returns to innovative, value-adding chemistries. Improved understanding of chemistry can lead to field developments and extension that would otherwise be uneconomic. The industry's responsibility to do this safely and with due concern for the environment is paramount. The theme for CITOI XVI is **New Chemistries for Old Problems**. The Committee has once again received an impressive number of abstract submissions confirming industry and academic investment in chemistry solutions. We invite you to attend two days of high quality keynote speeches, oral and poster presentations, with an opportunity to network with peers and talk with exhibitors offering practical solutions.

Exhibition and Poster Display - CITOI XVI will host an exhibition and themed poster display area on the 5th and 6th November. Delegates will have ample opportunity between lecture sessions for individual discussions with poster authors and exhibitors offering relevant products and services.

Location - Known as the birthplace of the Industrial Revolution, Manchester is one of the most dynamic and cosmopolitan cities in the UK. An integrated transport network makes Manchester accessible for both national and international visitors using Manchester Airport or the well-connected train, coach and motorway system to and from the rest of the UK. We are pleased to host CITOI XVI within the magnificent, neo-gothic Whitworth Hall and Christie Library (now Christie's Bistro) at the University of Manchester. Chemistry has a long and distinguished history in Manchester and these historic rooms, located in the Oxford Road campus area, also continue the Symposium tradition of being easily accessible by air, rail and road. The newly launched Crowne Plaza and Staybridge Suites Oxford Road, with adjacent car park, will serve as our marker hotels and are located within 7 minutes walk of the Whitworth Hall. The Hall will be transformed on the evening of the second day to host our Symposium dinner.

Registration and Pricing - The registration fee includes: attendance at the Symposium, Symposium information pack with softback copy of the Symposium Proceedings and fully searchable USB stick, morning and afternoon refreshments plus lunch during the symposium on 5th & 6th, Welcome Reception within Christie's Bistro on 4th November, Cocktail Reception and 3 course Symposium Dinner within Christie's Bistro and Whitworth Hall on 5th November.

Delegate prices - UK VAT is charged at 20%:

RSC / EOSCA members - £395 + VAT per person

Non-members - £485 + VAT per person

Academics / Students / Speakers - £170 + VAT per person

To register please go to the registration link on the events page at:

<http://www.rsc.org/events/detail/36525/chemistry-in-the-oil-industry-xvi-new-chemistries-for-old-problems>

For further enquiries including sponsorship and exhibitor opportunities please contact:

Conference Secretariat
Ms Tricia Francis - Tel: +44(0)7966 560644
Email: tricia.francis@rscspecialitychemicals.org.uk
www.rscspecialitychemicals.org.uk

SPONSORS INCLUDE*:

Ashland, BYK Additives Ltd, The Dow Chemical Company, EOSCA, Lubrizol, Nouryon, PSL Systemtechnik, Solvay.

**at the time of going to print*

EXHIBITORS INCLUDE*:

Anton Paar (UK), Ashland, Asynt, BYK Additives Ltd, Chemex Environmental Solutions, The Dow Chemical Company, EOSCA, Lakeland Laboratories, Lubrizol, Metrohm, Nouryon, PSL Systemtechnik, Scientific & Medical Products, Seqens Custom Specialties (Chemoxo)

SYMPOSIUM ORGANISING COMMITTEE:

Richard Bligh-Smith – The Dow Chemical Company
Henry Craddock – HC Oilfield & Chemical Consulting
Jack Dunlop – JD Vistas Ltd
Harry Frampton – BP Upstream Technology
Tricia Francis – Conference Secretariat
Kevan Hatchman – Star Brands Limited
Steve Jackson – Baker Hughes, a GE Company
Myles Jordan – Nalco Champion
Ross MacDonald – Spirit Energy
Nik Robinson – EOSCA & Nikam Consulting
Andrew Shepherd – Shell Australia Pty Ltd
Clare Temple-Heald – Innospec Inc

Chemistry in the Oil Industry XVI

New Chemistries for Old Problems

An International Symposium organised by the Royal Society of Chemistry Speciality Chemicals Sector and the European Oilfield Speciality Chemicals Association

**Whitworth Hall,
University of Manchester, UK
4th – 6th November 2019**



Royal Society of Chemistry



Registered Charity Number 207890



PROGRAMME

Monday 4th November

16:00 – 18:00 Registration at Whitworth Hall, University of Manchester

19:00 **Welcome Reception**
at Christie's Bistro, University of Manchester

Tuesday 5th November

08:00 – 08:30 Registration & Refreshments

08:30 **Welcome by CITOI XVI Committee Chair**
Steven Jackson, Baker Hughes, a GE Company, UK

08:45 **Keynote Lecture: The OSPAR Environmental Strategy beyond 2020 - A New Approach to the Regulation of Offshore Chemicals or a Continuation of the Existing Regime?**
Ian Still, Nalco Champion UK

09:30 **SESSION 1: FLOW ASSURANCE**
Chair: Steven Jackson, Baker Hughes, a GE Company, UK
Kevan Hatchman, Star Brands Ltd, UK

09:30 **Time Resolved Fluorescence Analysis for Oilfield Production Chemicals** - Sarah J. Ewing, Scaled Solutions, UK

10:00 **Low Viscosity Long Chain Polyacrylate Paraffin Inhibitors**
Larisa Reyes, The Dow Chemical Company, USA

10:30 – 11:00 Refreshments, Exhibition, Posters & Networking

11:00 **Paraffin Control in High Pour Point Crude**
Lingling Li, Nouryon, USA

11:30 **Innovative Chemical Additives as Paraffin Inhibitors and Pour Point Depressants in Heavy Oils**
Stacy Scranton, BYK USA Inc, USA

12:00 **Poster Pitch Presentations**
Various Authors

12:30 – 13:30 Lunch, Exhibition, Posters & Networking

13:30 **SESSION 2: DRILLING / HYDRAULIC FRACTURING**
Chair: Clare Temple-Heald, Innospec Inc, UK
Richard Bligh-Smith, The Dow Chemical Company, UK

13:30 **Eco-Friendly Drilling Fluid Additives Developed from Waste Vegetable Oil**
Jothibas Ramasamy, Saudi Aramco, KSA

14:00 **Unique Multi-Functional Cellulosic Additive Giving Superior Performance to Synthetic Fluid Loss Control Additives in High Temperature and Lightweight Density Cements**
Alan Goliaszewski, Ashland, USA

14:30 **The Role of Production Chemistry Management in the Shale Play**
Wally Georgie, Maxoil Process Consultancy, USA

15:00 – 15:30 Refreshments, Exhibition, Posters & Networking

15:30 **SESSION 3: SCALE AND CORROSION INHIBITION**
Chair: Henry Craddock, HC Oilfield and Chemical Consulting, UK
Nik Robinson, EOSCA & NIKAM Consulting, UK

15:30 **A Mechanistic Investigation into Synergistic Interactions of Polymeric and Phosphorus Containing Scale Inhibitors for Inorganic Scale Control within Oilfield Process Equipment**
Myles M. Jordan, Nalco Champion, UK

16:00 **Development and Application of a Novel, Multi-Functional Phosphonate Scale Inhibitor for Scale Control in Challenging Environments**
Stephen Heath, Baker Hughes, a GE Company, UK

16:30 **Thermodynamic Modelling of the Precipitation Chemistry of Phosphonate Scale Inhibitors and Divalent Cations (Ca and Mg): Application to Precipitation Squeeze Treatments**
Duarte J. Silva, Heriot-Watt University, UK

18:45 Cocktail Reception at Christie's Bistro, University of Manchester

20:00 Symposium Dinner at Whitworth Hall, University of Manchester

Wednesday 6th November

09:00 **Keynote Lecture: Microplastics: How will the EU Restriction on Microplastics Impact Oilfield Chemistries?**
Nik Robinson, EOSCA & NIKAM Consulting, UK

09:45 **SESSION 4: REGULATION AND ECONOMICS**
Chair: Myles Jordan, Nalco Champion, UK
Andrew Shepherd, Shell Australia Pty Ltd, Australia

09:45 **Analytical Challenges and Solutions in Identifying Corrosive Inhibitors in Base Oils for REACH**
Stacey Webster, Yordas Group, UK

10:15 – 10:30 Refreshments, Exhibition, Posters & Networking

10:45 **Formaldehyde-Releasing Substances; Better the Devil You Know?**
Mick Wragg, Lubrizol Limited, UK

11:15 **Risk-Based Approach: Global Environmental Regulatory Solution**
Kirit Wadhia, NOV, UK

11:45 **New Chemistry Devised to Tackle the Old Problem of Amorphous Polymeric Dithiazine Produced from the Use of Triazine H₂S Scavengers**
G N Taylor, J J Wylde, A P Oliveira Filho, Clariant Corporation, USA

12:15 – 13:15 Lunch, Exhibition, Posters & Networking

13:15 **SESSION 5: FLOW ASSURANCE**
Chair: Jack Dunlop, JD Vistas Ltd, UK
Ross MacDonald, Spirit Energy, UK

13:15 **Development of High Performance Dendrimeric Demulsifiers**
Rachael Cole, Schlumberger Production Technologies

13:45 **Quantifying Hydrate Blockage in High Watercut Systems with Under-Dosed Thermodynamic Inhibitors**
Temiloluwa Kuteyi, University of Western Australia, Australia

14:15 **Delaying the Onset of Asphaltene Precipitation Using Asphaltene Inhibitors**
Helen Sarginson, Croda, UK

14:45 – 15:15 Refreshments, Exhibition, Posters & Networking

15:15 **SESSION 6: ENHANCED OIL RECOVERY**
Chair: Harry Frampton, BP Upstream Technology, UK
Andrew Shepherd, Shell Australia Pty Ltd, Australia

15:15 **Development of a Microfluidic Device for Online Measurement of Surfactant and Oil in Chemical EOR Applications**
Christine Dalmazonne, IFP Energies nouvelles, France

15:45 **The Effect of Back-Produced EOR Polymers on Scale Squeeze Efficiency**
Alan Beteta, Heriot-Watt University, UK

16:00 **Selection of Scale Inhibitors for Calcium Carbonate Inhibition in EOR Polymer Treatments - A New Approach**
Miriam Barber, Baker Hughes, A GE Company, UK

16:30 **SYMPOSIUM REVIEW & CLOSING REMARKS**