

## Improving Our World by Advancing the Application of Chemistry at Scale

*The chemical sciences are vital for the wellbeing of our world. The know-how to efficiently and safely perform chemistry at industrial scale is a critical element – this is the focus of this interest group.*

### ABOUT PROCESS CHEMISTRY AND TECHNOLOGY GROUP

The RSC expects global and societal challenges to drive huge changes in the chemical sciences. The world will need process chemists and technologists to be at the forefront of this change with innovative solutions.

The Royal Society of Chemistry (RSC) re-established a special interest group called the Process Chemistry and Technology Group (PCTG) in July 2018. The vision of this group is to be a place where process chemistry and process technology joins together and to bridge the gap, aid innovation and raise awareness of current issues in the field.

The PCTG, comprising some 800 members across multiple sectors, is led by an enthusiastic committee of professionals, all of whom are active in this field.

#### Grand challenges include

- Reaction engineering,
- Low energy separation and better transportation
- Biomedical, simulation & control, invasive sensors, nanotech for oncology & drug delivery
- Energy – low cost, energy storage, multiscale engineering, biodegradable materials
- Green chemicals – renewable feedstock, better use of biomass and enzymes from extremophile organisms

#### How can we make a difference in process chemistry?

To enable this, the goals of the Process Chemistry and Technology Group (PCTG) are:

- to bridge the gap between process chemistry and technology,
- to aid innovation, and
- to raise awareness of current issues in the field.

In pursuit of this, we organize meetings and webinars, offer careers advice, and develop channels of communication for members to share knowledge and experience. See more in the **Events** section below.

#### By engaging with the PCTG you can:

- Promote and contribute to the advancement of industrial-scale process chemistry and technology
- Develop your skills and understanding by learning from experts in the field
- Boost your career, raise your profile, and build your network of like-minded chemical scientists from industry and academia

#### What you can do?

- Join the PCTG – we are open to all members of the RSC. Please contact the RSC membership team to join us
- Join us at our virtual and in-person events.
- Follow us on social media.

#### Topics that are important to PCTG:

- Chemical process development
- Chemical process optimization
- Intensification and applied green chemistry
- Chemical process safety
- Scale-up
- Manufacturing operations
- Industrial chemistry in theory and practice

## THE COMMITTEE

**Chairman:** Dr Mukund Chorghade *CChem FRSC*

**Treasurer:** Carl Steele *CChem FRSC*

**Secretary:** Dr Peter Clarke *CChem MRSC*

#### Committee Members:

Dr Bethan Coulson, Richard Hart *CChem MRSC*, Mark Hughes *MRSC*, Dr Phil Kay *CChem MRSC*, Professor David Littlejohn *FRSC FRSE*, Professor Siddharth Patwardhan *CChem FRSC*, Dr Jonathon Speed *CChem MRSC*



#### Interested in Joining the Committee?

New members are always welcome, to help us drive our exciting programme of activities and projects. The Committee meets 3 times per year in London. On the other 9 months of the year, the Committee meets by teleconference. Please contact us to find out more.

## Ways to contact PCTG

**Website:** [www.procchem.group](http://www.procchem.group)

**Email:** [rscpctg@gmail.com](mailto:rscpctg@gmail.com)



## Challenges in Process Chemistry and Technology

The PCTG are leading the way to challenge the UK industry through its membership and networks to think differently about how to approach the world's future process chemistry and technology challenges.

There have been many articles produced on the different aspects of these challenges. Learned bodies and key influencing organisations across the world are trying to accelerate the introduction and breakthrough of new science and technology. This may result in significant improvements in areas such as food production, medicine and electronics. In pursuit of this, we organize meetings and webinars, offer careers advice, and develop channels of communication for members to share knowledge and experience. The PCTG is collaborating with the Centre for Process Analytics and Control Technology (CPACT) in shared areas of interest.

The PCTG held a one day symposium in April 2019 in Manchester called "The morning after: UK chemistry in a post-Brexit world," with a series of presentations to discuss different aspects that the impact Brexit may have on chemistry-using

industries in the UK. This included an update on the overall Brexit situation from a government perspective by Ben Wells, a Senior Policy Advisor at BEIS. This was followed by sessions by Ian Hollis, BASF and Eleanor Newman, GSK from industrial perspectives. There were also presentations from Camilla Alexander-White of the RSC and Angela Thomas (MHRA) on regulatory challenges, and by Jenny Clucas, from Cogent Skills on the challenges to training and recruitment.

The next event will be held on 15th November 2019 at RSC's centre in Burlington House, London called "Making it small: Energising entrepreneurship in the chemical sector". The theme of the symposium is "encouraging and supporting entrepreneurs to bring innovative technology to fruition in the chemical industry". We aim to encourage entrepreneurship amongst the "young and old, shy and bold" and help build networks to enable scientists discuss and parley among themselves to remove obstacles in the path from mind to marketplace.

*by Carl Steele*

## EVENTS

### Past events:

- **First Launch Symposium** was held on 19<sup>th</sup> November 2018 in London, UK
- **The morning after: UK Chemistry in a post-Brexit world** held on 10<sup>th</sup> April 2019, Manchester, UK
- **Webinar on process intensification**  
The American Institute of Chemical Engineers (AIChE) is presenting "Modular chemical process intensification: Discovering opportunities and overcoming challenges" on 17 July 2019. [Click here for more information.](#)

### Upcoming events:

- **Making it small: Energising entrepreneurship in the chemical sector**  
15<sup>th</sup> November 2019 from 09:30 to 16:00,  
London, United Kingdom  
A one day symposium on the challenges and how-to of being a chemical industry entrepreneur. [Click here for more information.](#)



RSC INTEREST GROUP  
PROCESS CHEMISTRY  
AND TECHNOLOGY

#### **Making it small: Energising entrepreneurship in the chemical sector**

Encouraging and supporting entrepreneurs to bring innovative technology to fruition in the chemical industry

- **Webinar on How to Ensure Quality By Design**  
1200-1400, 8<sup>th</sup> October 2019.  
Experts from industry and academia will show you methodologies to help you design quality into your processes.
- **Bridging the gap between bio-inspired nanomaterial chemistry and sustainable manufacture** [Click here for [Event Information](#)]  
22-23 January 2020, Manchester, UK  
This symposium aims to bring together stakeholders from industry and academia to drive the development of sustainable nanomaterials through discovery and scale-up.
- **Virtual Conferences on Flow Chemistry**  
Details to follow.
- **Joint Symposium With Applied Catalysis Group**  
Autumn 2020, details to follow.