

# Butler Meeting

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SCOTLAND AND NORTH OF ENGLAND REGIONAL  
ELECTROCHEMISTRY SYMPOSIUM



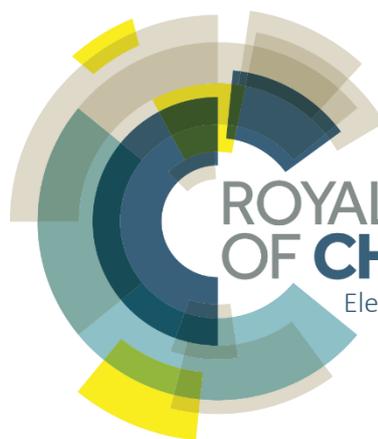
University of  
St Andrews

26<sup>th</sup> April 2017

The Butler Meeting 2017 has been made possible by the support of the following organisations



University of  
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ROYAL SOCIETY  
OF CHEMISTRY  
Electrochemistry Interest Group



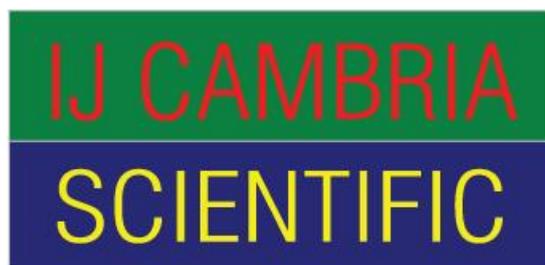
A special thanks to our exhibitors, who have also generously supported the meeting



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**Metrohm**



On behalf of all of us at the University of Saint Andrews, I would like to wish you a warm welcome to the Scotland and North of England Regional Electrochemistry Symposium for 2017. This year the organisation of the meeting has been fully student-led by the St Andrews ECS Student Chapter.

The following few pages contains all essential location and safety information, the running order for the meeting, along with all the accepted abstracts. This meeting would not be possible without the hugely generous support of our sponsors, so please do visit them at their stands during the lunch and breaks, and show your gratitude for keeping the Butler Meeting free to attend. I would also like to thank the ECS Student Chapter committee members for their hard work and support in helping to organise the event. I hope you enjoy the symposium.

*Robert Price, President of the St Andrews ECS Student Chapter*

### **Meeting Information**

All sections of the meeting will take place in the **School of Medicine** (KY16 9TF). **Registration** can be found in the foyer of the building, while talks will be held in the Booth Lecture Theatre to the right of the registration desk. **Breaks, lunches** and the **posters** will be held in the canteen area, to the left of the registration desk. We would be very grateful if poster exhibitors could put up their posters straight after they have registered, to allow people more time to read them throughout the day.

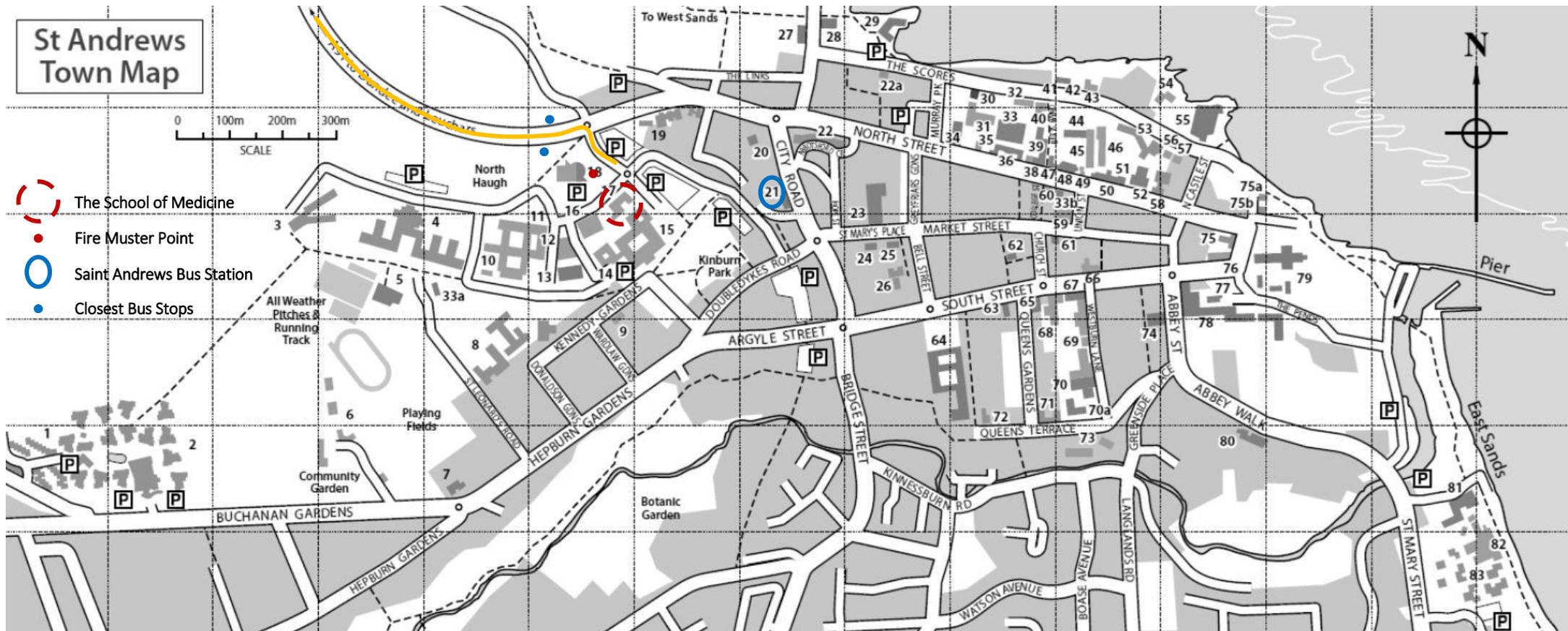
### **Fire and Security information**

A fire alarm test will be carried out at 4pm in the afternoon, which will ring for approximately 10 seconds. In the event of any other fire alarm during the symposium, please leave in an orderly fashion and assemble in front of the Gateway Building (opposite the School of Medicine, see map below).

### **Internet Access**

UK delegates should use the Eduroam wireless internet service. For details on using Eduroam please see: <https://www.st-andrews.ac.uk/eduroam/>

Please note that although we will attempt to resolve any technical issues people have with the wireless networks, we may need to refer you back to your home institutions for technical support in the case of the Eduroam network.



### Local Information

The School of Medicine is located on the North Haugh, situated on the right of the A91 from Dundee and Leuchars. Public car parking is available immediately to the north and east of the building.

Saint Andrews is served by Leuchars railway station, approximately five miles from the centre. There is a regular bus service (99 by Stagecoach) from Leuchars in to Saint Andrews, and taxis are also available. For more detailed information, along with other transport options, see the following link: <https://www.st-andrews.ac.uk/about/visiting/travel/>



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OF CHEMISTRY

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## Butler Meeting 2017

26<sup>th</sup> April, School of Medicine, University of St Andrews



- 10:00 Registration with Coffee  
10:30 Welcome from Professor John Irvine  
10:35 **Keynote** – Molecular Processes in Batteries  
*Professor Ulrich Stimming (Newcastle University)*

### Session 1

**Chair:** Dr Mark Symes

- 11:20 Bismuth micro electrodes for nuclear pyro reprocessing, development  
*Justin Elliot (University of Edinburgh)*
- 11:40 Development of the Ag/AgCl reference electrode from Density Functional Theory based Molecular Dynamics  
*Xiaohui Yang (University of Aberdeen)*
- 12:00 A combined microstructural and ionic conductivity study of multiple aliovalent doping in ceria electrolytes  
*Alice Coles-Aldridge (University of St Andrews)*
- 12:20 Experimental analysis of PEM fuel cell stack with serpentine flow plate design  
*Tabbi Wilberforce Awotwe (University of the West of Scotland)*
- 12:40 Lunch & Poster Session

### Session 2

**Chair:** Stewart Dickson

- 13:40 **Keynote** – Probing energy storage materials on a local scale  
*Dr Serena Corr (University of Glasgow)*
- 14:25 Spectroscopic evidence of cation-dependent potential induced pH changes during CO<sub>2</sub> electroreduction  
*Onagie Ayemoba (University of Aberdeen)*
- 14:45 Electrochromic Switching of Thin Films of Prussian Blue Molecule-based Magnets  
*Luke Hedley (University of Edinburgh)*
- 15:05 Coffee Break

### Session 3

**Chair:** Robert Price

- 15:25 Cell Culture Monitoring: voltammetric determination of pH via quinone modified printed electrodes  
*Craig McBeth (Leeds Beckett University)*
- 15:45 Making Silver Sandwiches: Structural Properties of Electrodeposited Ag Overlayers on Pt(111)  
*Christopher Wildi (University of Aberdeen)*
- 16:05 Structural and electrical properties of Lithium Barium Hydride  
*Stephy Wilson (University of St Andrews)*
- 16:25 Closing Remarks

*With thanks to our generous sponsors*

