



## Monday 27 October

08:30-13:00	Registration	
13:30	<b>Welcome and Introductions</b>	
14:00	<b>Faraday Lecture (History)</b> Andrew MOUNT (Chair, Faraday Standing Committee on Conferences) <i>University of Edinburgh, UK</i>	
14:30	<b>Introductory Lecture</b> Peidong YANG <i>University of California, Berkeley, USA</i>	<b>Paper 0054</b>
15:30	Afternoon Tea	
	<b>Session 1 Electrochemical Conversion and Storage Systems</b>	
	Session Chair: Clare P. Grey	
16:00	<b>Control parameters for electrochemically relevant materials. The significance of size and complexity</b> Joachim MAIER <i>Max Planck Institute for Solid State Research, Germany</i>	<b>Paper 0135</b>
16:05	Discussion of Paper 0135	
16:20	<b>Oxide diffusion in innovative SOFC cathode materials</b> Hu Yang, Vincent Thoréton, Caroline Pirovano, Edouard Capoen, Christine Bogicevic, Nicolas Nuns, Anne-Sophie Mamede, Guilhem Dezanneau, Rose-Noëlle VANNIER* <i>Ecole Nationale Supérieure de Chimie de Lille, France</i>	<b>Paper 0129</b>
16:25	Discussion of Paper 0129	
16:40	<b>Ion counting in supercapacitor electrodes using NMR spectroscopy</b> John GRIFFIN,* Alexander Forse, Hao Wang, Nicole Trease, Pierre-Louis Taberna, Patrice Simon, Clare Grey <i>University of Cambridge, UK</i>	<b>Paper 3822</b>
16:45	Discussion of Paper 3822	
17:00	General Discussion	
17:30-20:00	Poster Session and Light Refreshments	

## Tuesday 28 October

	<b>Session 1 cont'd Electrochemical Conversion and Storage Systems</b>	
	Session Chair: Joachim Maier	
08:30	<b>Effect of the alkali insertion ion on the electrochemical properties of nickel hexacyanoferrate electrodes</b> Hyun-Wook Lee*, Pasta Mauro; Richard Wang, Ruffo Riccardo, Yi Cui <i>Stanford University, USA</i>	<b>Paper 0147</b>
08:35	Discussion of Paper 0147	

08:50	<b>Synthesis, structure, and ionic conductivity of solid solution, <math>\text{Li}_{10+\delta}\text{M}_{1+\delta}\text{P}_{2-\delta}\text{S}_{12}</math> (M = Si, Sn)</b> Satoshi Hori, Kota Suzuki, Masaaki Hirayama, Yuki Kato, Toshiya Saitoo, Masao Yonemura, Ryoji KANNO* <i>Tokyo Institute of Technology, Japan</i>	<b>Paper 0143</b>
08:55	Discussion of Paper 0143	
09:10	General Discussion	
	Session Chair: Ryoji Kanno	
09:30	<b><i>In situ</i> TEM Study of Li-Au reaction in an electrochemical liquid cell</b> Zhiyuan Zeng, Wen-I Liang, Ying-Hao Chu, Haimei ZHENG * <i>Lawrence Berkeley National Laboratory, USA</i>	<b>Paper 3960</b>
09:35	Discussion of Paper 3960	
09:50	<b>Effect of electrochemical dissolution and deposition order on lithium dendrite formation: a top view investigation</b> Wenjun Li, Hao Zheng, Geng Chu, Fei Luo, Jieyun Zheng, Dongdong Xiao, Xing Li, Lin Gu, Hong Li,* Xianlong Wei, Qing Chen, Liquan Chen <i>Institute of Physics, CAS, China</i>	<b>Paper 3596</b>
09:55	Discussion of Paper 3596	
10:10	General Discussion	
10:30	Morning Tea	
	Session Chair: Rudolf Holze	
11:00	<b>Activity-stability relationships in the surface electrochemistry of the oxygen evolution reaction</b> Seohyoung Chang, Justin Connell, Nemanja Danilovic, Ram Subbaraman, Kee-Chul Chang, V Stamenkovic, Nenad MARKOVIC* <i>Argonne National Laboratory, USA</i>	<b>Paper 0134</b>
11:05	Discussion of Paper 0134	
11:20	<b>Graphene-supported iron-based nanoparticles encapsulated in nitrogen-doped carbon as a synergistic catalyst for hydrogen evolution and oxygen reduction reactions</b> Xinhe BAO,* Jing Wang, Guoxiong Wang, Shu Miao, Jiayuan Li <i>Dalian Institute of Chemical Physics, CAS, China</i>	<b>Paper 3846</b>
11:25	Discussion of Paper 3846	
11:40	General Discussion	
12:00	Lunch	
	<b>Session 2 Solar Cells and Photocatalytic Systems</b>	
	Session Chair: Licheng Sun	
13:30	<b>A facile two-step method for fabrication of plate-like <math>\text{WO}_3</math> photoanode under mild conditions</b> Nan Wang, Jian Zhu, Xiaojia Zheng, Feng-Qiang Xiong, Baokun Huang, Jingying Shi, Can LI* <i>Dalian Institute of Chemical Physics, CAS, China</i>	<b>Paper 0139</b>
13:35	Discussion of Paper 0139	
13:50	<b>Comparison of photoelectrochemical water oxidation activity of a synthetic photocatalyst system with photosystem II</b> Yi-Hsuan Lai, Masaru Kato, Dirk Mersch, Erwin REISNER* <i>University of Cambridge, UK</i>	<b>Paper 0059</b>
13:55	Discussion of Paper 0059	
14:10	<b>Photoelectrochemical properties of <math>\text{SrNbO}_2\text{N}</math> photoanodes for water oxidation fabricated by the particle transfer method</b> Haruki Urabe, Takashi HISATOMI,* Tsutomu Minegishi, Jun Kubota,	<b>Paper 3611</b>

	Kazunari Domen <i>The University of Tokyo, Japan</i>	
14:15	Discussion of Paper 3611	
14:30	General Discussion	
15:00	Afternoon Tea	
	Session Chair: Can Li	
15:30	<b>Artificial photosynthesis: photosensitizer/catalyst supramolecular assemblies for light driven water oxidation</b> Licheng SUN,* Yan Gao, Ze Yu, Xin Ding, Lina Duan <i>KTH Royal Institute of Technology, Sweden</i>	<b>Paper 3645</b>
15:35	Discussion of Paper 3645	
15:50	<b>Inorganic core-shell assemblies for closing the photosynthetic cycle</b> Heinz FREI,* Yuan Guangbi, Anil Agiral, Norman Pellet, Kim Wooyul <i>Lawrence Berkeley National Laboratory, USA</i>	<b>Paper 3633</b>
15:55	Discussion of Paper 3633	
16:10	General Discussion	
16:30-18:00	Poster Session	
18:00	Conference Dinner	

### Wednesday 29 October

	<b>Session 2 cont'd Solar Cells and Photocatalytic Systems</b>	
	Session Chair: Galen Stucky	
08:30	<b>Mesoscopic photosystems for solar light harvesting and conversion. Facile and reversible transformation of metal-halide perovskites</b> Hauke Arne Harms, Nicolas Tétreault, Norman Pellet, Michaël Bensimon, Michael GRÄTZEL* <i>École Polytechnique Fédérale de Lausanne, Switzerland</i>	<b>Paper 0055</b>
08:35	Discussion of Paper 0055	
08:50	<b>Effect of double blocking layers at TiO<sub>2</sub>/Sb<sub>2</sub>S<sub>3</sub> and Sb<sub>2</sub>S<sub>3</sub>/spiro-MeOTAD interfaces on photovoltaic performance</b> Nam-Gyu PARK,* Hyun-Woo Kang, Jin-Wook Lee <i>Sungkyunkwan University, South Korea</i>	<b>Paper 0126</b>
08:55	Discussion of Paper 0126	
09:10	<b>Mesoporous perovskite solar cells: material composition, charge-carrier dynamics, and device characteristics</b> Yixin Zhao, Alexandre Nardes, Kai ZHU* <i>National Renewable Energy Laboratory, USA</i>	<b>Paper 3817</b>
09:15	Discussion of Paper 3817	
09:30	<b>Liquid phase deposition of TiO<sub>2</sub> nanolayer affords CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub>/nanocarbon solar cells with high open-circuit voltage</b> Shihe YANG,* Haining Chen, Zhanhua Wei, Ya Yi, Keyou Yan, Jiannong Wang <i>The Hong Kong University of Science and Technology</i>	<b>Paper 3667</b>
09:35	Discussion of Paper 3667	
09:50	General Discussion	
10:30	Morning Tea	
	<b>Session 3 Energy-related Catalytic and Other Materials</b>	
	Session Chair: Dongyuan Zhao	

11:00	<b>Data-driven discovery of energy materials: efficient <math>\text{BaM}_2\text{Si}_3\text{O}_{10}:\text{Eu}^{2+}</math> (<math>M = \text{Sc, Lu}</math>) phosphors for application in solid state white lighting</b> Jakoah Brgoch, Kathryn Hasz, Kristin Denault, Christopher Borg, Alexander Mikhailovsky, Ram SESHADRI* <i>University of California, Santa Barbara, USA</i>	<b>Paper 0125</b>
11:05	Discussion of Paper 0125	
11:20	<b>Bridging silicon nanoparticles and thermoelectrics: phenylacetylene functionalization</b> Shane Ashby, Jason Thomas, Jorge García-Cañadas, Gao Min, Jack Corps, Anthony V Powell, Hualong Xu, Wei Shen, Yimin CHAO* <i>University of East Anglia, UK</i>	<b>Paper 3487</b>
11:25	Discussion of Paper 3487	
11:40	General Discussion	
12:00	Lunch	
	Session Chair: Nenad Markovic	
13:30	<b>Enhanced oxygen evolution activity by NiO and <math>\text{Ni}(\text{OH})_2</math> nanoparticles</b> Lucas-Alexandre Stern, Xile HU * <i>École Polytechnique Fédérale de Lausanne, Switzerland</i>	<b>Paper 0120</b>
13:35	Discussion of Paper 0120	
13:50	<b>Mechanisms for CO oxidation on Fe(III)-OH-Pt interface: a DFT study</b> Gang FU,* Nanfeng Zheng, Guangxu Chen, Yun Zhao <i>Xiamen University, China</i>	<b>Paper 3793</b>
13:55	Discussion of Paper 3793	
14:10	<b>Carbonization of self-assembled nanoporous hemin with a significantly enhanced activity for oxygen reduction reaction</b> Yan Xie, Chizhou Tang, Zhiqiang Hao, Yang Lv, Ruixia Yang, Xuming Wei, Wei-Qiao Deng, Anjie Wang, Baolian Yi, Yujiang SONG * <i>Dalian Institute of Chemical Physics, CAS, China</i>	<b>Paper 3511</b>
14:15	Discussion of Paper 3511	
14:30	<b>A comparative study of CO adsorption on tetrahedral Pt nanocrystals and interrelated Pt single crystal electrodes by using cyclic voltammetry and <i>in situ</i> FTIR spectroscopy</b> Hai-Xia Liu, Na Tian, Jin-Yu Ye, Bang-An Lu, Jie Ren, Zhichao Huangfu, Zhi-You Zhou, Shi-Gang SUN * <i>Xiamen University, China</i>	<b>Paper 3607</b>
14:35	Discussion of Paper 3607	
14:50	General Discussion	
15:30	Afternoon Tea	
16:00	<b>Perspective Lecture</b> <b>Triboelectric nanogenerators as new energy technology and self-powered sensors – principles, problems and perspectives</b> Zhong Lin WANG <i>Georgia Institute of Technology, USA</i>	<b>Paper 0056</b>
16:30	<b>Concluding remarks</b> Lee CRONIN <i>University of Glasgow, UK</i>	<b>Paper 0057</b>
17:00	Close of meeting	