Lichfield Science & Engineering Society

PATRON
Mr Ian Dudson CBE
HM Lord Lieutenant of Staffordshire

CHAIRMAN
Dr Robert Giles

PRESIDENT
Professor Peter A Lambert

NOTE CHANGE OF DATE

8:00 pm on Thursday, 14th March 2019
in the Studio Theatre of the Lichfield Garrick, Lichfield, WS13 6HR

WMG's Capabilities For Translating Scientific Research Into Competitive UK Battery Cell Production

Dr Melanie J Loveridge
Associate Professor in Energy Materials
Warwick Manufacturing Group, University of Warwick

Lithium-ion batteries (LIBs) remain the energy storage technology of choice for next-generation automotive and grid storage applications, to economically enhance their energy / power density and range longevity. To be commercially viable for the electrification of transport, large format batteries require a high specific capacity to store lithium ions, high safety, availability, cost, and environmental benignity. In order to achieve this we need to efficiently capture cutting-edge research and be able to build on this to generate prototypes that are of industry relevance.

Dr Melanie Loveridge is an academic from WMG's Energy Innovation Centre at the University of Warwick, where she researches new battery materials and investigates battery forensics and failure modes. Prior to this Dr Loveridge was a specialist in a spin-out company from Imperial College, developing new generation silicon materials for Li-ion batteries. Her doctoral studies were undertaken at The Materials Research Centre in Swansea University in 2004 in the field of in-situ electrochemical investigation of corrosion mechanisms in coated steels.

Her current energy research is at WMG's Energy Innovation Centre, a unique UK academic facility, housing battery research laboratories and a prototype scale-up facility. It also has material synthesis and forensic laboratories, with a suite of characterisation techniques to better understand property-process-performance correlations, needed to fabricate next generation energy storage systems. Dr Loveridge has published many papers around battery development and investigation, and has appeared on BBC Radio 4 on several occasions to talk about energy storage. She has delivered public lectures and frequently engages in public outreach activities.

For further information, please see our website at www.LSES.org.uk
Students and Members Free.
Visitors £5.00. Tickets are not issued in advance, please pay at the door.
Members must sign in. Those signing in before 7:50 pm will have precedence over all visitors.
This lecture is expected to finish by 10.00 pm.