Lichfield Science & Engineering Society

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8:00 pm on Tuesday 15th September 2015
in the Studio Theatre of the Lichfield Garrick, Castle Dyke, Lichfield

PEROVSKITE –
A NEW MATERIAL FOR SOLAR CELLS

Note change of speaker

Dr David Moore
Maximilian Höerantner
University of Oxford

Perovskite, otherwise known as $CaTiO_3$, was discovered in the Ural Mountains in the 1830s but it has come to prominence more recently with the interest in solar energy. Perovskite based solar materials have exhibited the fastest increase in demonstrated photovoltaic efficiency of any material. Tests suggest that the efficiency of a perovskite based cell can be in the order of 20% and in theory can be much higher. This compares favourably with that of silicon cells but importantly the material is much easier, and cheaper, to process.

Maximilian Hörantner is currently a 3rd year Physics DPhil student in the Photovoltaic and Optoelectronic Device Group of Professor Henry Snaith at Oxford University. His studies are funded by Oxford Photovoltaics Limited and his research focuses on semi-transparent Perovskite solar cells that could be used within window glass. Maximilian holds a BSc and MSc in engineering from ETH Zurich and co-founded the social enterprise SocialSolar Limited aiming to power rural schools in India.

Dr David Moore graduated and received his PhD from Cornell University. He is currently a senior post-doctoral researcher in Professor Snaith's group

Their talk will cover the history and science of Perovskite based materials as well as current and potential future applications.

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.