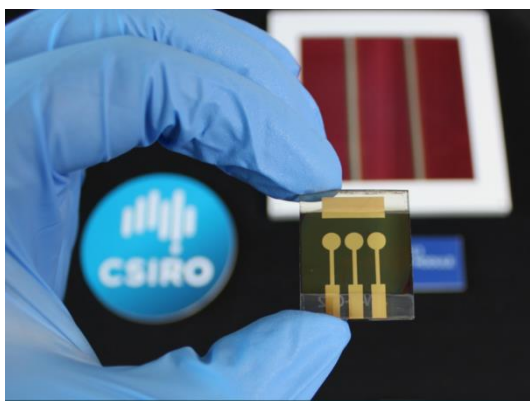


Research Internship in CSIRO Australia - Advanced Perovskite Solar Cells for BIPV and Tandem PVs Applications

CSIRO Energy
www.csiro.au



The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is currently seeking motivated students for 6 -12 month research projects. (MSc/PhD student preferable)



CSIRO is Australia's national science agency and is one of the largest and most diverse research agencies in the world. CSIRO was formed in 1926 and has more than 50 sites throughout Australia and overseas. Energy is one of the organisation's largest Divisions. We are pioneering low-emission technologies that create value for industry and households and provide the knowledge which will help guide our community towards a smart, secure energy future.

Internship with Dr Jacob Tse-Wei Wang and Dr Gregory Wilson :

Thin-film perovskite solar cells

Thin-film perovskite solar cells have emerged as an inexpensive and revolutionary type of photoactive semi-conductor in thin-film solar photovoltaics (PV), with a 23 per cent power conversion efficiency (PCE) rating. We are setting the benchmark in Australia for testing and collaboration on breakthrough thin-film solar photovoltaic technologies based on perovskite semi-conductors to reduce production cost, increase solar cell performance and improve energy efficiency.

Research Project: Semi-transparent perovskite solar cells for BIPV and Tandem PVs.

Semi-transparent devices is not only the building blocks for the multi-junction photovoltaics but also can be integrated with building glasses (building integrated photovoltaics, BIPV). It is particularly interesting as buildings has large surface areas for sunlight harvesting, which could reduce the expense of energy and mitigate the carbon emission on an sizable scale.

To exploit and investigate and the full potential of semi-transparent device, the student will be tasked to render the colour capacity with different chemical compositions in perovskite and perform optical simulation on the transparency imposed efficiency along with the implementation on the device fabrication. The student will have opportunities to work closely with scientists and learn hands-on experience on various fabrication/characterization techniques including sputtering deposition, thermal evaporation, UV-Vis, Photoluminescence/Electroluminescence imaging, etc.



Application deadline: 30/May/2019

Start time: summer 2019

Duration: 6-12 months

Stipend: ca. AUD\$ 2000 per month

Location: Energy (Newcastle), Australia

Contact (CSIRO): Dr Jacob Tse-Wei Wang

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FOR FURTHER INFORMATION

w www.csiro.au/en/Research/Energy

***Include your CV and statement of purpose (500 words Max.) for application**