Contribution ID: **261** Type: **Poster presentation**

Dye-sensitized solar cell based on hydrothermally deposited NiS counter electrode

Wednesday 20 May 2015 14:00 (3h 30m)

NiS films were prepared by a hydrothermal technique on FTO glass substrates. The NiS films were used as a counter electrode electrodes of dye-sensitized solar cell. The dye-sensitized solar cell base on NiS exhibited performance with the energy conversion efficiency of 8.33%, open-circuit voltage of 0.74 V, short-circuit current of 16.23 mA.cm^{-2}, and fill factor of 0.69 under full sunlight illumination (100 mW.cm^{-2}, AM 1.5G). This performance is close to the devices using platinum as the counter electrode (8.48%).

Author: Mr MAIAUGREE, Wasan (Department of Physics, Faculty of science, Khon Kaen University, Khon Kaen, THAILAND)

Co-authors: Dr SWATSITANG, Ekaphan (Department of Physics, Faculty of science, Khon Kaen University, Khon Kaen, THAILAND); Dr PIMANPANG, Samuk (Department of Physics, Faculty of science, Khon Kaen University, Khon Kaen, THAILAND); Dr AMORNKITBAMRUNG, Vittaya (Department of Physics, Faculty of science, Khon Kaen University, Khon Kaen, THAILAND); Mr KANMUANG, Weerawat (Department of Physics, Faculty of science, Khon Kaen University, Khon Kaen, THAILAND)

Presenter: Mr MAIAUGREE, Wasan (Department of Physics, Faculty of science, Khon Kaen University, Khon Kaen, THAILAND)

Session Classification: Poster-1

Track Classification: Surface, Interface and Thin Film