Contribution ID: **347** Type: **Poster Presentation**

Ultrafast Transient Absorption measurements on Indoline D149 Dye

Thursday, 14 July 2011 17:00 (2 hours)

<p>D149 Dye has proven to be an effective photo-absorber for use in dye sensitized solar cells. Pump-probe measurements were conducted on D149 dye as well as D149 adsorbed to Zinc Oxide semi-conducting particles. Ultrafast dynamics on a sub-ps time scale, easily resolved by the current experimental setup at the LRI, were observed in both samples. Significant quenching of the excited state dynamics of the D149 molecule was seen in samples adsorbed to Zinc oxide, indicating the occurence of intermolecular charge transfer of photo-excited electrons from the singlet excited state of the D149 molecule and subsequent injection into the conduction band of the Zinc Oxide particles.

Level (Hons, MSc,
   PhD, other)?

PhD

Consider for a student
   award (Yes / No)?

Yes

Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?

No

Primary author: Mr ROHWER, Egmont (Stellenbosch University)

Presenter: Mr ROHWER, Egmont (Stellenbosch University)

Session Classification: Poster2

Track Classification: Track C - Lasers, Optics and Spectroscopy