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## Identification of ultrafast processes in the spectroscopy of ZnPc

*Wednesday, 13 July 2011 14:30 (15 minutes)*

The transient absorption of Zinc phthalocyanine (ZnPc) has been studied by femtosecond pump-probe spectroscopy. We present results on the ultrafast spectroscopy of ZnPc, specifically identifying three ultrafast components observed. These are the inertial solvation dynamics (1.8 ps), the dielectric solvation dynamics (39 ps) and vibrational relaxation (2.7 ps) in the electronic excited state. Results using different pump wavelengths, different sample concentrations and different solvents help to clarify the mechanisms behind the observed signals. The red shift of the ground state (Q band) spectra is also discussed.

**Level (Hons, MSc, <br> &nbsp; PhD, other)?**

PhD

**Consider for a student <br> &nbsp; award (Yes / No)?**

Yes

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

No

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