

THUIIIe • Poster III e - Chemical Physics*Poster Area***16:15–18:15****THUIIIe • Poster III e - Chemical Physics****THUIIIe.1 • 16:15****Control of Excited-State Population and Vibrational Coherence with Shaped Resonant and Near-Resonant Excitation,**

•Tiago Buckup¹, Jürgen Hauer¹, Carles Serrat^{2,3}, and Marcus Motzkus¹; ¹Physikalische Chemie, Philipps Universität Marburg, D-35043 Marburg, Germany, ²ICFO-Institut de Ciències Fotòniques, 08860 Castelldefels, Barcelona, Spain, ³Tecnologies Digitals i de la Informació, Universitat de Vic, 08500 Vic, Spain.

The enhancement of vibrational coherence and population transfer using tailored pulses has been investigated numerically and experimentally. The general control mechanism is based on the control of the absorption coefficient after excitation with multipulses.

THUIIIe.2 • 16:15**Pump-push-probe transient spectroscopy of isolated conjugated oligomers,**

•Jenny Clark¹, Juan Cabanillas-Gonzalez¹, Tersilla Virgili¹, Luca Bazzana², and Guglielmo Lanzani¹; ¹Dipartimento di Fisica, IFN, CNR, Politecnico di Milano, Piazza Leonardo Da Vinci 32, Milano, Italy, ²LUCEAT Spa. Viale G. Marconi, 31, Dello (BS) Italy.

We use a transient pump-push-probe technique to study intrinsic charge photogeneration and subsequent recombination in isolated conjugated molecules. Furthermore, we demonstrate stimulated emission switching with large on/off ratio in doped polymer optical fibers.

THUIIIe.3 • 16:15**Photomodulation of Interfacial Electron Transfer by Optical**

Switches, •Lars Dworak, Victor Matylitsky, and Josef Wachtveitl; Institut für Physikalische und Theoretische Chemie, Max von Laue-Strasse 7, Johann Wolfgang Goethe-Universität Frankfurt, 60438 Frankfurt am Main, Germany.

The dynamics of 4-(phenylazo)benzoic acid coupled to Al₂O₃ and TiO₂ films is described. The drastically altered photochemistry of the optical switch upon absorption to TiO₂ films reflects the competition between electron transfer and intramolecular relaxation.

THUIIIe.4 • 16:15**Two-color two-dimensional Fourier transform spectroscopy of energy transfer,**

Kristin L. M. Lewis, •Jeffrey A. Myers, Patrick F. Tekavec, and Jennifer P. Ogilvie; Department of Physics and Biophysics, University of Michigan, Ann Arbor, MI, 48109, USA.

We report two-color 2D electronic spectra obtained using a diffractive-optics-based approach. We employ the two color method to study a simple system consisting of a donor/acceptor pair exhibiting fluorescence resonance energy transfer.

THUIIIe.5 • 16:15**Energy redistribution in large molecules on the**

subpicosecond timescale, •Mikael Kjellberg¹, Olof Johansson², Eleanor E.B. Campbell², Alexander V. Bulgakov³, and Klavs Hansen¹; ¹Department of Physics, Göteborg University, SE-41296, Göteborg, Sweden, ²School of Chemistry, Edinburgh University, Edinburgh EH9 3JJ, Scotland, ³Institute of Thermophysics SB RAS, 1 Lavrentyev Ave. 630090 Novosibirsk, Russia.

Photoelectron spectra of C₆₀, C₇₀ and several polyaromatic hydrocarbon molecules after 160 fs laser ionization have been measured with a momentum map electron spectrometer. The spectra are thermal in nature.