



ΕΡΕΥΝΗΤΙΚΟ ΙΝΣΤΙΤΟΥΤΟ ΧΗΜΙΚΗΣ ΜΗΧΑΝΙΚΗΣ ΚΑΙ ΧΗΜΙΚΩΝ ΔΙΕΡΓΑΣΙΩΝ ΥΨΗΛΗΣ ΘΕΡΜΟΚΡΑΣΙΑΣ

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ΣΕΜΙΝΑΡΙΟ

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ΘΕΜΑ: **APPLICATIONS OF STEP-SCAN TIME-RESOLVED FTIR
SPECTROSCOPY TO BIOMOLECULAR ELECTRONICS**

ΤΟΠΟΣ: Αίθουσα Σεμιναρίων ΕΙΧΗΜΥΘ-ΙΤΕ

ΗΜΕΡΟΜΗΝΙΑ: Τετάρτη, 9 Ιανουαρίου 2002

ΩΡΑ: 13:00

ΠΕΡΙΛΗΨΗ

Time-resolved FTIR spectroscopy is a powerful tool to study kinetic processes in a variety of chemical systems because it provides valuable information on short-lived reaction intermediates. Time resolution to the submicrosecond level is achieved with step-scan techniques. Here, the optical retardation is held constant during sampling of the interferogram elements, which are then time-sorted and rearranged to obtain complete interferograms. Applications of step-scan time-resolved FTIR to the field of molecular electronics include light-driven ion transport by membrane proteins, as well as electron-hole recombination in semiconductor quantum dots. What unites these applications is the observation of the kinetics and structures involved in the recombination events that follow a fast light-induced charge separation.