January 2021, Departments of Chemistry and Physics & Astronomy

2 POSTDOCTORAL SCHOLAR POSITIONS in
Theoretical and Computational Chemical Physics
In the Mukamel Group, University of California Irvine

RESEARCH TOPICS:

(A) Nonlinear Spectroscopy with Quantum Optical Fields
Novel optical signals which use entangled photons and quantum light, pulse shaping, and coherent control algorithms will be designed and simulated for probing electronic and vibrational dynamics in molecular systems

(B) Ultrafast Nonlinear X-ray Spectroscopy of Molecules
Emerging X-ray free electron laser (XFEL) beam sources offer new types of probes of matter with unprecedented spatial and temporal resolutions. Cutting-edge theoretical and simulation tools for nonlinear multidimensional X-ray/optical spectroscopies will be developed.

Time-dependent many-body approaches will be developed to nonlinear x-ray core-electron spectra and conical intersections. Computational tools will be implemented for the design and analysis of measurements involving multiple ultrafast optical and x-ray pulses.

Recent Ph.D. is required. Salary will be commensurate with experience.

Send a curriculum vitae, publication list and arrange for three letters of recommendation to

Professor Shaul Mukamel
Department of Chemistry and Physics & Astronomy
1102 Natural Sciences
University of California, Irvine
Irvine, CA 92697-2025
smukamel@uci.edu
949/824-7600 (phone); http://mukamel.ps.uci.edu (website)

Selective Publications


The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected categories covered by the UC nondiscrimination policy.