

Shachi S. Gosavi

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EDUCATION	Ph.D., Physical Chemistry, minor in Physics, Sept, 2002. California Institute of Technology, Pasadena. Thesis Title: Electron Transfer at Metal Surfaces Advisor: Professor Rudolf A. Marcus M.Sc., Chemistry (specialization: Physical Chemistry), March 1995. Indian Institute of Technology, Bombay, India.
RESEARCH AND TEACHING EXPERIENCE	<i>Research Assistant.</i> California Institute of Technology Dec 1995 – Present. Study of various aspects of electron transfer at gold and platinum interfaces: dependence of rate constants on density of states in the metals, temperature dependence of rate constants, inverse photoemission at metal solution interfaces. Developed a method to calculate the tight binding wavefunction of a metal with a surface which uses the Z-transform. <i>Research Assistant</i> with Dr. B. L. Tembe, IIT, Bombay. June 1994 - Aug. 1995 Ran molecular dynamics simulations for calculating the diffusion coefficients of super-ionic conductors. Modified and debugged an MD program. <i>Teaching Assistant</i> California Institute of Technology Sept 1995 – June 2000. Graded homework in Introductory General Chemistry (Ch 1abc). Held office hours and graded homework for Equilibrium (Ch 164) and Nonequilibrium Statistical Mechanics (Ch 165) and Introduction to Electron Transfer (Ch 221).
OTHER ACADEMIC EXPERIENCE	<i>System Administrator</i> Marcus Group, California Institute of Technology Sept 1998 - Present Responsible for the maintainence and smooth operation of an HP-700 Cluster running HP-UX 10.20 and a Linux cluster. Upgraded the HP-UX from 9.05 to 10.20, built the linux cluster from scratch. <i>Web Page Administrator</i> OASIS, California Institute of Technology Sept 1999 - June 2001 Designed, expanded and maintained the web page of the Indian association.
COMPUTER SKILLS	Programming Languages: Fortran, C++, C, and familiarity with Java, Perl. Extensive use of shell scripts, html. Operating Systems: Unix, Linux. Packages: Mathematica, Matlab. Some knowledge of parallel programming, MPI.
WORKSHOPS ATTENDED	<i>Chemical Applications of Statistical Mechanics</i> Organised by Dr. B. L. Tembe, Indian Institute of Technology, Bombay, Dec. 1994.

Analytical Approaches to Rate Processes and Time-Resolved Spectroscopy in Condensed Phases

Summer School in Chemical Physics

Organised by Dr. Shaul Mukamel and Dr. R. A. Marcus, George Williams University, Rhode Island, June, 2000.

PUBLICATIONS: S. Gosavi and R. A. Marcus, "Nonadiabatic Electron Transfer at Metal Surfaces," *J. Phys. Chem. B*, 104, p. 2067, 2000.

S. Gosavi, Y. Q. Gao, and R. A. Marcus, "Temperature Dependence of the Electronic Factor in the Nonadiabatic Electron Transfer at Metal and Semiconductor Electrodes," *J. Electroanal. Chem.*, 500, p. 71, 2001.

S. Gosavi and R. A. Marcus, "Inverse Photoemission at Metal Electrodes," in preparation.

AWARDS National Talent Search Scholarship: 1988 - 1995.

Second in the M.Sc. graduating class of 1995, Indian Institute of Technology, Bombay.