

## The Raymond and Beverly Sackler Distinguished Lecturers in Chemistry

1980-81	Prof. Rudolf A. Marcus
1982-83	Prof. Andrew Streitwieser, Jr.
1983-84	Prof. John B. Fenn
1984-85	Prof. Bruce Berne
1985-86	Prof. Robert G. Shulman
1985-86	Prof. George Feher
1986-87	Prof. Adam Heller
1987-88	Prof. Harold L. Friedman
1988-89	Prof. Walter D. Knight
1989-90	Prof. Robert Silbey
1990-91	Prof. Vitali I. Goldanskii
1991-92	Prof. Richard E. Smalley
1992-93	Prof. Ahmed H. Zewail
1993-94	Prof. Anatol M. Zhabotinsky
1993-94	Prof. Graham Fleming
1994-95	Prof. Friedrich Hensel
1995-96	Prof. Alex Pines

## Joshua Jortner Distinguished Lectures in Chemistry of The Raymond and Beverly Sackler Foundation

1996-97	Prof. John M. Deutch
1998-99	Prof. Steve Berry
1999-00	Prof. Gary H. Posner
2000-01	Prof. Jan Peter Toennies
2001-02	Prof. Adrian Parsegian
2003-04	Prof. Claude Cohen-Tannoudji
2004-05	Prof. George Whitesides
2005-06	Prof. Tobin J. Marks
2006-07	Prof. K. C. Nicolaou
2007-08	Prof. Mark A. Ratner
2009-10	Prof. Barry Trost
2009-10	Prof. Louis Brus
2010-11	Prof. Richard Van Duyne
2011-12	Prof. Krzysztof Matyjaszewski
2013-14	Prof. Martin Moskovits
2014-15	Prof. Ben L. Feringa

TEL AVIV UNIVERSITY  אוניברסיטת תל-אביב

Joshua Jortner הרצאות מיוחדות בכימיה  
Distinguished Lectures in Chemistry על שם יהושע יורטנר  
Endowed by Raymond and Beverly Sackler נתרמו ע"י ריימונד ובברלי סאקלר

**Professor Wilson Ho פרופסור ווילסון הו**  
Dept. of Physics and Astronomy המחלקה לפיזיקה ואסטרונומיה  
University of California אוניברסיטת קליפורניה  
Irvine, USA אירווין, ארה"ב

### Nano Seminar סמינר ננו

#### "IMAGING BONDS AND CHEMICAL INTERACTIONS"

The Seminar will be held on Tuesday, 28 April 2015, at 16:15, in Auditorium No. 020, ground floor, between Wolfson Building of Electrical Engineering and Wolfson Building of Mechanical Engineering, Tel Aviv University, Ramat Aviv.

הסמינר יתקיים ביום שלישי, 28 באפריל 2015, בשעה 14:00, באודיטוריום 020, בקומת הקרקע, בין בניין וולפסון להנדסת חשמל לבין בניין וולפסון להנדסה מכנית, אוניברסיטת תל-אביב, רמת-אביב.

*Light refreshments will be served before the seminar* כיבוד קל יוגש רבע שעה לפני הסמינר

### Seminar סמינר

#### "SINGLE MOLECULE CHEMISTRY INDUCED BY INELASTIC ELECTRON TUNNELING"

The Seminar will be held on Thursday, 30 April 2015, at 16:00, in Room 315, Multidisciplinary Research Building, Tel-Aviv University, Ramat-Aviv.

הסמינר יתקיים ביום חמישי, 30 באפריל 2015, בשעה 16:00, בחדר מס' 315, בבניין הרב תחומי, אוניברסיטת תל-אביב, רמת-אביב.

*Light refreshments will be served before the seminar* כיבוד קל יוגש רבע שעה לפני הסמינר



**Joshua Jortner** was born in Poland in 1933 and immigrated to Israel in 1940. He received his Ph.D. from the Hebrew University of Jerusalem in 1960. In 1964 he was appointed to a professorship in the Department of Chemistry at Tel Aviv University and served as its first chairman. From 1966-72 he served as Deputy Rector, Acting Rector and Vice President of Tel Aviv University. From 1973-2003 he held the position of the Heinemann Professor of Chemistry at the School of Chemistry, The Raymond and Beverly Sackler Faculty of Exact Sciences of Tel Aviv University. He has held visiting Professorships at the University of Chicago, the University of Copenhagen, and the University of California, Berkeley. In 1995 he was the Christensen Visiting Fellow, St. Catherine's College, Oxford, and in 1998 he served in the International Research Chair "Blaise Pascal" of the Fondation de l'École Normale Supérieure, France. Jortner holds honorary doctorates from the Ben Gurion University of the Negev, Israel (1985);

the Pierre and Marie Curie University of Paris, France (1986); the Technical University of Munich, Germany (1996); the Technion, Israel Institute of Technology, Haifa, Israel (2005); the Weizmann Institute of Science, Rehovot, Israel (2005); the Free University of Berlin, Germany (2005); and the Humboldt University of Berlin, Germany, (2003). Among his awards are the International Academy of Quantum Science Award (1972), the Weizmann Prize (1973), the Rothschild Prize (1976), the Kolthof Prize (1976), the Israel Prize in Exact Sciences (1982), the Wolf Prize in Chemistry (1988), the Honorary J. Heyrovsky Medal (1993), the August Wilhelm von Hofmann Medal (1995), the Joshua Jortner Distinguished Lectures in Chemistry Endowed by Raymond and Beverly Sackler (1997), the Robert S. Mulliken Medal (1999), the Joseph O. Hirschfelder Prize (1999), the Maria Sklodowsky-Curie Medal of the Polish Chemical Society (2003), the Medal of the Israeli Chemical Society (2004), the Joshua Jortner Chair in Chemistry endowed by Raymond and Beverly Sackler (2007), the Lise Meitner Research Award of the Alexander von Humboldt Foundation (2007), and the EMET Prize in Exact Sciences: Chemistry (2008). A member of the Israeli Academy of Sciences and Humanities, Jortner is a foreign honorary member of the Academies of Sciences of Denmark, Poland, Romania, Russia, India, the Netherlands and the Czech Republic. He is a member of the International Academy of Quantum Molecular Sciences, the Academia Scientiarum et Artium Europaea and the Leopoldina National Academy of Germany. He is a Foreign Honorary Member of the American Philosophical Society, the American Academy of Arts and Sciences and the National Academy of Sciences of the United States of America. He held many honorary lectureships in Europe, Asia, the United States and Israel.

Jortner served as President of the Israel Academy of Sciences and Humanities (1986-1995), served as the Founding President of the Israel Science Foundation, and acted as Science Advisor to the Prime Ministers of Israel, Shamir, Rabin and Peres. He served as the President of the International Union of Pure and Applied Chemistry (1998-2000).

His research centers on the exploration of the phenomena of energy acquisition, storage and disposal in isolated molecules, clusters, condensed phases and biophysical systems. Jortner is the author of over 725 scientific publications, and the author and editor of 28 books.



**Wilson Ho** received his B.S. and M.S. degrees in chemistry from the California Institute of Technology in 1975, and his Ph.D. in physics from the University of Pennsylvania in 1979. He spent a year as a member of the technical staff at the AT&T Bell Laboratories and was on the faculty at Cornell University prior to joining the University of California, Irvine in 2000 as Donald Bren Professor of Physics & Astronomy and of Chemistry. His research has been guided by the development of new instrumentation for probing molecules by adsorbing them on solid surfaces. He discovered impact scattering and the off-specular selection rule for high resolution electron energy loss spectroscopy (EELS) of molecular vibrations. Recognizing the importance of time resolved measurements, his group constructed multichannel electron detectors and femtosecond lasers to follow changes in molecules and their internal states. Over the last 18 years, his research explores the new frontier of single molecule chemistry by low temperature scanning

tunneling microscopes (STM) in ultrahigh vacuum. In 1998, his group realized single molecule vibrational spectroscopy and microscopy by inelastic electron tunneling spectroscopy (IETS), thus empowering STM with chemical sensitivity. Subsequently, STM-IETS has been extended to record the excitation of single electron spin, molecular rotation, optical transitions, and the development of the inelastic tunneling probe (itProbe) to image chemical bonds, the skeletal structure of single molecules, and intermolecular interactions. He has published 270 papers and some of the results have appeared in textbooks. His work has been recognized by Fellowships in the American Physical Society and the American Association for the Advancement of Science, the Bonner Chemistry Prize, the Alexander von Humboldt Research Award for Senior US Scientists, the Medard Welch Award of the American Vacuum Society, the Irving Langmuir Prize of the American Physical Society, Membership in the U.S. National Academy of Sciences, and Academician of the Academia Sinica, Republic of China.