

March 2024

**CURRICULUM VITAE**

Born: 1944, TEL AVIV, ISRAEL

ZAHAL (Israeli) Military Service: 1966-1969

Marital Status (No. of children): Married, 2 children

**EDUCATION**

1961-1964 Hebrew University, Jerusalem Chemistry B.Sc. Summa cum laude

1964-1966 Hebrew University, Jerusalem Chemistry M.Sc. Summa cum laude

1970-1972 Tel-Aviv University Chemistry Ph.D. Summa cum laude

Master's Thesis: On the Radiation Chemistry of Water

Supervisor: Professor G. Czapski

Doctoral Dissertation: Radiationless Transitions in Molecular Systems

Supervisor: Professor J. Jortner

**ACADEMIC AND PROFESSIONAL EXPERIENCE**

Period	Institute	Department	Function
2015-	University of Pennsylvania	Chemistry	Professor
2014-2015	Free University Berlin	Physics	Visiting Professor
2013-	Tel Aviv University	Chemistry	Prof. Emeritus
1981-2013	Tel Aviv University	Chemistry	Professor
2006-2012	Northwestern Univ	Chemistry	Adjunct Professor
2003-2015	Tel Aviv University	Sackler Institute of Advanced Studies	Director

1995-1998	Tel Aviv University	Sackler Faculty of Exact Sciences	Dean
1990-1991	Weizmann Institute	Chemistry	Professor
1984-1987	Tel Aviv University	Chemistry	Chairman
1975-1981	Tel Aviv University	Chemistry	Assoc. Prof.
1974-1975	Northwestern Univ	Chemistry	Assistant Prof
1974-1975	Univ. of Chicago	Chemistry	Research Assoc.
1972-1974	M.I.T.	Chemistry	Research Assoc.

**RESEARCH INTERESTS**

- Theoretical studies of activation, relaxation and energy transfer processes in molecular systems.
- Theory of transport phenomena in condensed phases and on surfaces.
- Theory of chemical reaction rates in condensed phases.
- Theory of ionic diffusion and conductivity in solid ionic conductors, in polymers and in confined systems.
- Electromagnetic and electronic interactions in small particles and clusters
- Theoretical investigations of charge transfer and charge separation phenomena in condensed phases, at interfaces and in nano-junctions.
- Theory of molecular electronics.
- Numerical simulations of relaxation and transport processes.
- Numerical simulations of quantum mechanical processes.

**ACADEMIC AND PROFESSIONAL DISTINCTIONS**

1970-72	Tel Aviv University	Studies Awards
1972-75	U.S.A	Fulbright Fellow
1976-	Tel Aviv University	Research Grants (Israel NSF, US-Israel BSF, etc.)
1990	American Physical Society	APS Fellow
1992	Tel Aviv University	Riwka (nee Schechter) and Iser Kodesz Chair of Chemical Dynamics
1995	Germany	Alexander von Humboldt Award
1995	Technion, Israel	Kolthoff Prize
2003	Israel Chemical Society	Israel Chemical Society Award
2004	American Association for the Advances of Science	AAAS Fellow
2004	Technical University, Munich	Manchot Award
2006	American Academy of Arts and Sciences	Foreign Honorary Member
2007	Duke University, USA	John Morrow Visiting Fellowship
2008	European Research Council	ERC Advanced Grant
2008	Technion, Israel	Schulich visiting lecturer
2009	Israel Academy of Sciences and Humanities	Member
2009	University of Sydney	Hush Lecture
2010	Israel	Israel Prize in Chemistry
2010	Univ. of Konstanz, Germany	Honorary Doctorate (Dr. Honoris Causa)
2011		Thomson Reuters list of top 100 chemists over the period 2000-2010 as ranked by the impact of their published research
2011	Univ. of Chicago, USA	Mulliken Lecture & medal
2012	Israel	EMET Prize
2014	University of Pennsylvania	Ralph and Lucy Hirschmann Visiting Professor

**ABRAHAM NITZAN, Ph.D.**

University of Pennsylvania

2014	University of Pittsburgh	Kaufman Lecturer
2014-15	Free university Berlin	Mercator Visiting Professor
2015	Israel Chemical Society	Israel Chemical Society Medal
2015	National Academy of Sciences (USA)	Foreign Associate
2015	University of California, Berkeley	Pitzer Lecture
2017	University of Wisconsin	Hirschfelder Prize in Theoretical Chemistry
2018	University of Pennsylvania	Donner Professor of Physical Sciences
2019	American Physical Society	Earle K. Plyler Prize for Molecular Spectroscopy & Dynamics
2020	American Chemical Society	ACS Award in Theoretical Chemistry
2020	American Physical Society	Journal of Chemical Physics Editor Choice Award (with coauthor Alex Semenov)

**VISITING APPOINTMENTS**

<b>Period</b>	<b>Institute</b>	<b>Department</b>	<b>Function</b>
Summer 1975.	Bell Labs (Murray Hill, NJ)	Chemistry	Consultant
1976-80	Northwestern Univ	Chemistry	Adjunct Prof.
Summer 1976	Bell Labs (Murray Hill, NJ)	Chemistry	Consultant
Summer 1977	Bell Labs (Murray Hill, NJ)	Chemistry	Consultant
Summer 1977	CNRS, Univ. de Paris Sud	Lab. Photophys. Molec.	Visiting Prof.
Summer 1979	Allied Chemical Corp. (Morristown, N.J)	Physical Chemistry	Consultant

1979-1980	Bell Labs, Murray Hill, NJ	Chemistry	Temp. Staff
Summer 1981	Bell Labs, Murray Hill, NJ	Chemistry	Consultant
Spring 1982	Northwestern Univ	Chemistry	Visiting Prof.
Summer 1983	UCSB, Santa Barbara, CA	Chemistry	Consultant
Summer 1983	Northwestern Univ, Evanston	Chemistry	Consultant
Fall 1983	CNRS, Univ. de Paris Sud	Lab.Photophys. Molec.	Visiting Prof.
Summer 1984	UCSB, Santa Barbara, CA	Chemistry	Consultant
Summer 1984	Northwestern Univ, Evanston	Lab.Photophys. Molec.	Consultant
Winter 1985	KFA Julich , Germany	Theoretical Physics	Visiting Prof.
Summer 1985	Northwestern Univ, Evanston	Chemistry	Consultant
Summer 1985	UCSB, Santa Barbara, CA	Chemistry	Consultant
Spring 1986	Northwestern Univ, Evanston	Chemistry	Visiting Prof.
Summer 1986	AT&T Bell Laboratories	Chemistry	Consultant
Summer 1986	UCSB, Santa Barbara, CA	Chemistry	Consultant

**ABRAHAM NITZAN, Ph.D.****University of Pennsylvania**

Summer 1987	Northwestern Univ, Evanston	Chemistry	Visiting Prof.
Summer 1987	Georgia Tech., Atlanta, GA	Physics	Consultant
Feb 1988	Georgia Tech., Atlanta, GA	Physics	Consultant
Spring 1988	Northwestern Univ, Evanston	Chemistry	Visiting Prof.
Summer 1989	Georgia Tech., Atlanta, GA	Physics	Consultant
Summer 1990	Georgia Tech	Physics	Consultant
Summer 1991	Georgia Tech	Physics	Consultant
Spring 1992	Northwestern Univ	Chemistry	Visiting Prof.
Winter 1994	Northwestern Univ	Chemistry	Visiting Prof.
Winter 1995	Univ of Konstanz	Physics	Visiting Prof.
Spring 1995	KFA, Jülich	Theoretical Physics	Visiting Prof.
Summer 1995	MPI f. Astrophysik	Physics	Visiting Prof.
Summer 1998	POSTECH (Pohang, S. Korea)	Chemistry	Visiting Prof.
Winters 1999-2006	Northwestern Univ	Chemistry	Visiting Prof.
Winter 2007	Duke University	Chemistry	Visiting Prof.

Summer 2007	University of Colorado Boulder	Chemistry	Visiting Prof.
Winter 2009	Technion, Israel	Chemistry	Visiting Prof.
2006-2012 (yearly visits)	Northwestern Univ	Chemistry	Adjunct Prof.
Springs 2009- 2014	University of Konstanz	Physics	Visiting Prof.
Spring 2014	University of Pennsylvania	Chemistry	Visiting Prof.
2014-15	Free University of Berlin	Physics	Visiting Prof.
May 2017	Beijing University	College of Chemistry and Molecular Engineering)	Visiting Prof.
May 2017	University of Science and Technology (Hefei, China)	International Center for quantum design of functional materials	Visiting Prof.

**ACTIVE PARTICIPATION IN SCIENTIFIC MEETINGS**

<b>Year</b>	<b>Subject</b>	<b>Place</b>
1972 (Invited).	Radiationless Transitions	Boulder, Col. , USA
1973 (invited)	Gordon Conference on Energy Transfer	New Hampshire, USA
1974 (Invited).	Radiationless Transitions	Schliersee, Germany
1975	Gordon Conference on Critical Phenomena.	New Hampshire, USA
1976	Gordon Conference on Instabilities in Non Equilibrium Systems	New Hampshire, USA

1977 (Invited)	Synergetics	Schloss Elmau, Germany
1977 (Invited)	Multiphoton Processes	Gif Sur Yvette, France
1977 (Invited)	Thermodynamics - A workshop	Aspen, Colorado, USA
1978 (Invited)	Synchrotron Radiation	Gif Sur Yvette, France
1978	Raman Scattering	Bangalore, India.
1978 (Invited)	Laser Chemistry	Ein Bokek, Israel
1979 (Invited)	Dynamics of Systems with Many Accessible States,	Munich Germany
1980	Systems far from Equilibrium	Sitges, Spain
1980(Org. Com.)	Radiationless Transitions	Kyriat Anavim, Israel
1981 (Invited)	Gordon Research Conference on Molecular Surface Dynamics	New Hampshire, USA
1981	6th International Conference on Photochemistry	Iraklion, Crete
1981 (Invited)	Meeting of the Israel Chemical Society	Beer Sheva, Israel
1981 (Invited)	Bat Sheva Seminar on Metal and Semiconductor-Electrolyte Interface	Ein Gedi, Israel
1982	Midwest Theoretical Chemistry Conference	Michigan, USA
1982 (invited)	Gordon Conference on Vibrational Spectroscopy	New Hampshire, USA
1982	International Conference on Vibrations at Surfaces	California, USA
1984 (invited)	Jerusalem Symposium on Dynamics on Surfaces	Jerusalem, Israel
1984 (invited)	United States Israel Binational Conference on excited state dynamics	Jerusalem, Israel
1984 (org. comm.)	MOLEC V	Jerusalem, Israel
1984	International Conference on Raman Scattering	Tokyo, Japan
1984 (invited)	Spectroscopy of Adsorbates on Solid Surfaces	Osaka, Japan



1986, (Invited)	International Symposium on Metal and Semiconductor/Electrolyte Interfaces	Ein Gedy, Israel
1986, (Invited)	Jerusalem Symposium on Tunnelling	Jerusalem, Israel
1986(invited)	X International Conference on Raman Spectroscopy	Eugene, Oregon, USA
1987 (Invited)	Bar Ilan International Meeting on Disordered Systems	Ramat Gan
1987 (Invited)	Jerusalem Symposium of Large Finite Systems	Jerusalem, Israel
1987 (Discuss. Leader)	Gordon Research Conference on Gas Surface Interactions	N.H., USA
1987 (invited)	6th International Conference on Solid State Ionics	Garmisch Partenkirchen, Germany
1987	International Conference of Tunneling Electron Spectroscopy and Microscopy	California, USA
1988 (Invited)	APS Meeting: Symposium on "Path Integral Methods in Multiparticle Dynamics"	New Orleans, USA
1988	APS Meeting: Symposium on "Ionic Conductors"	New Orleans, USA
1988 (Invited)	3rd North American Congress: Symposium on Photoprocesses at Surfaces	Toronto, Canada
1988 (Invited)	Conference on the Role of Nonlinear Dynamics in Reaction Kinetics	Lake Arrowhead, CA, USA
1988 (Invited)	ACS Meeting: Symposium on Reaction Dynamics in Condensed Phases	Los Angeles, USA
1988 (Invited)	Workshop on Spectral Grid Methods in Quantum Mechanical Calculations	Orsay, France
1989 (Invited)	Gordon Conference on Energy Transfer	New Hampshire, USA
1989 (Invited)	Gordon Conference on Ionic Conductors	New Hampshire, USA
1990 (Invited)	Meeting on Reaction Dynamics in Condensed Systems.	Bayrouth, Germany

1990 (Invited)	International Meeting on Chemical Reactions in Condensed Systems	Tutzing, Gemany
1990	Gordon Conference on Water and Ionic Solutions	New Hampshire,U.S.A
1990 (Invited)	International Meeting on Noise in Non-Linear Systems	Berlin, Germany
1991 (Org. Committee)	1991 International Meeting on Condensed Phase Dynamics, (Organizing Committee).	Neve Ilan, Israel
1991 (Invited)	International Conference on Polymeric Ionic Conductors.	Annecy, France
1991 (Invited)	Ultrafast Processes in Spectroscopy.	Bayreuth, Germany
1991 (Invited)	James Franck Symposium: "Cluster and Solvation Dynamics"	Schloss Ringberg, Kreuth/ Tegernsee, Germany
1992 (Invited)	U.S.-Israel Workshop on Computational Chemistry	Berkely, CA., U.S.A.
1992 (Invited)	International School on Chemical Physics	Merida,Venezuela
1992 (Invited)	Israel Chemical Society Meeting	Technion, Israel
1992 (Invited)	2nd Symposium on Molecular Reaction Dynamics in Condensed Matter).	Newport, CA, USA.
1992 (Invited)	2nd Japan-Israel Joint Symposium in Molecular Dynamics and Reactivity.	Okazaki, Japan
1992 (Invited)	Israel - China Joint Symposium, Beijing, China	Beijing, China
1993 (Invited)	GIF (Geman Israeli foundation) meeting,	Jerusalem, Israel
1993 (Invited)	Jerusalem Symposium on the dynamic of molecular processes	Jerusalem, Israel
1993 (Invited)	Conference on Time Vith International Resolved Vibrational Spectroscopy	Berlin, Germany
1993 (Invited)	European-Israeli Meeting on Dynamical Processes in Condensed Molecular Systems	Garchy, France
1993 (Invited)	1993 International meeting on Ultrafast Processes in Condensed Phase Chemical Systems.	France

1993 (Invited)	2nd International Discussion Meeting on Relaxations in Complex Systems	Alicante, Spain.
1993 (Invited)	Okazaki Conference on Chemical Dynamics in Condensed Phases.	Okazaki, Japan
1993 (Invited)	Meeting of the Japan Chemical Society	Hiroshima, Japan
1994 (Invited)	International Symposium on Polymer Electrolytes	Newport, R.I., USA
1994 (Invited)	International Workshop on Laser Physics	N.Y.C. USA
1994 (Invited)	China-Israel meeting on the dynamical of Chemical Processes	Jerusalem, Israel
1995 (invited)	Physics of Sliding Friction	ICTP, Trieste, Italy
1995	Ultrafast Processes	Lille, France
1995 (invited)	46th annual meeting of the International Society of electrochemistry	Xiamen, China
1996(invited)	Electron and ion transfer in condensed media	Trieste, Italy
1996 (invited)	Structure and dynamics in Chemistry and biodisciplines	Prague, Czech Republic
1996(invited)	Electrons in molecular wires and biosystems	Tegernsee, Germany
1996(invited)	ACS meeting, Symposium on Interfacial Electrochemistry	Orlando, FL, USA
1997 (invited)	James Franck Symposium	Ein Gedi, Israel
1997 (invited)	Multiscale Phenomena	Eilat, Israel
1997 (invited)	Molecular Relaxation in Condensed Phases	Prague
1997 (invited)	ACS meeting, Symposium on Chemical Dynamics at Interfaces	Las Vegas, USA
1997 (session chair))	Dynamics of liquids at interfaces	Ein Gedi, Israel
1998 (invited)	Ultrafast Phenomena in Condensed phases	Dead Sea, Israel
1998 (invited)	2 <sup>nd</sup> Czech-Israeli Symposium on Chemical Dynamics	Jerusalem, Israel
1998 (Int. Advisory Committee +invited)	16 <sup>th</sup> Int. Conf. On Coherent and non-linear optics	Moscow, Russia

1998 (invited)	Chemical reaction dynamics	Telluride, USA
1998 (Co-Organizer)	Electron transmission through molecules and molecular interfaces	Maagan, Israel
1999 (invited)	Workshop on dynamics of nano-structures	Gif-sur-Yvette, France
1999(invited)	Sweden-Israel Workshop on chemical dynamics on surfaces	Sweden
1999(invited)	SFB symposium	Garching, Germany
1999 (invited)	Meeting of the International Society of Electrochemistry	Pavia, Italy
2000 (invited)	American Physical Society meeting	Minneapolis, Mn, USA
2000 (invited)	Multiscale Phenomena	Eilat, Israel
2000 (invited)	Chemical reaction dynamics	Telluride, USA
2000 (invited)	Driven Quantum Systems	Tutzing, Germany
2000 (invited)	Quantum and Classical Transport	Ustron, Poland
2000 (invited)	Molecular Electronics	Kona, Hawaii
2001 (invited)	Electron Transport on the Molecular Scale	Dresden, Germany
2001 (invited)	Ultrafast surface dynamics	San Sebastian, Spain
2001 (invited)	ITP Workshop on Nanoscience	Santa Barbara
2002 (invited)	Israel Chemical Society Meeting	Jerusalem
2002 (invited)	American Chemical Society Meeting	Orlando, FL, USA
2002 (invited)	Workshop on Stochastic Dynamics in condensed systems	Konstanz, Germany
2002 (invited)	Quantum Dynamics of Condensed Phase Systems	Crete
2002 (invited)	Chemical Reaction Dynamics	Telluride, CO, USA
2002 (invited)	American Conference on Theoretical Chemistry	Champion, PA, USA
2002 (invited)	Diffusion Assisted Reactions	Seoul, Korea
2002 (invited)	Workshop on Molecular wires and devices	Laramie, Wyoming, USA
2002 (invited)	Symposium for Theoretical Chemistry	Bremen, Germany
2002 (invited)	Currents, trajectories and their applications in quantum dynamics	Lion, France
2002 (invited)	Theochem: Israel Theoretical Chemistry meeting	Jerusalem

2002 (invited)	6th Engineering Foundation Conference on Molecular Electronics	Key West, Florida
2003 (invited)	Israel Chemical Society Meeting	Tel Aviv
2003 (invited)	International WE-Heraeus Seminar on Energetics of Interfaces between Organic Molecules and Conductors	Bad Honnef, Germany
2003 (invited)	American Chemical Society Meeting	New Orleans, USA
2003 (invited)	38th IUVSTA and ISF Workshop - Electronic Processes and Sensing on the Nanoscale	Eilat, Israel
2003 (invited)	American Chemical Society Meeting	New York City, USA
2003 (invited)	Material Research Society Meeting	Boston, USA
2003 (invited)	Electrical and mechanical properties of nanowires	Venice, Italy
2004 (invited)	Fritz Haber conference on non-adiabatic processes at the gas-surface interface	Ein Gedi, Israel
2004 (invited)	Material Research Society Meeting	San Francisco, USA
2004 (invited)	Chemical reaction dynamics	Telluride, USA
2004 (invited)	The 5 <sup>th</sup> International Wilhelm and Else Summer School on molecular electronics	Wittenberg, Germany
2004 (invited)	2 <sup>nd</sup> Workshop on molecular conduction	Evanston, USA
2004 (invited)	Workshop on quantum dissipation	Safed, Israel
2004 (invited)	CNLS workshop on quantum and semiclassical molecular dynamics of molecular nanostructures	Los Alamos, USA
2005(invited)	APS meeting	Los Angeles, USA
2005(invited)	Classical and quantum simulations in chemical and biological physics	Dresden, Germany
2005(invited)	Trends in Nanotechnology	Oviedo, Spain
2005(organizer )	Molecular electronics	Safed, Israel
2005(invited)	Trends in Nanoscience – Structure and Function	Irsee, Germany
2005(invited)	DNA-based Nanowires	Modena, Italy

2005 (invited)	European Conference on Organic Electronics (ECOER)	Winterthur, Switzerland
2005 (invited)	Workshop on Computational Materials and Electronics	Austin, Texas, USA
2005(invited)	MRS Meeting	Boston, USA
2006(invited)	Workshop on Molecular Electronics	Bad Honnef, Germany
2006(invited)	Workshop on Molecular Electronics	Prague, Czech Republic
2006(invited)	College on Science at the Nanoscale	Beijing, China
2006(invited)	Vith RENCONTRES DU VIETNAM: Nanophysics ; from fundamentals to applications	Hanoi, Vietnam
2006(invited)	American Chemical Society Meeting	San Francisco, USA
2006(invited)	CECAM workshop: Heat transfer simulation at the atomic scale : new challenges for the futur	Lyon, France
2006(invited)	CECAM workshop: Inelastic effects in transport at the atomic scale	Lyon, France
2007(invited)	International symposium on theories of metal/organic interfaces	Osaka, Japan
2007(invited)	Minerva School: Unique Molecular Effects in Electronic Materials and Devices	Safed, Israel
2007(invited)	Fritz Haber Symposium: Conduction in molecular junctions	Yad Hashmona, Israel
2007(invited)	Physics of Fluctuations far from Equilibrium	Dresden Germany
2007(invited)	American Chemical Society meeting	Boston
2007(invited)	Workshop on Cooling and Thermodynamics	Safed, Israel
2007(invited)	Transport, Localization and Fluctuations in Complex Systems	Ilmenau, Germany (September)
2007(invited)	Nanosopic Transport: Quantum noise, Josephson junctions and molecular electronics	Freiburg, Germany (November)
2007(invited)	African Regional College on Science at the Nanoscale	Cape Town (November)

2007(invited)	Minerva-Gentner Symposium on Time Dependent Density Functional Theory	Eilat, Israel
2008(invited)	Winter School: "Topics in Nanoscience and Nanotechnology"	Dead Sea, Israel
2008(invited)	Transmission of Information and Energy in Non-Linear and Complex Systems	Singapore
2008(invited)	Electronic structure and Processes at Molecular based interfaces	Princeton, USA
2008(invited)	Workshop on Condensed Phase Dynamics	Telluride, USA
2008(invited)	Gordon Conference on Electronic Processes In Organic Materials	South Hudley, Mass, USA
2009 (invited)	Molecular and Organic Electronics (WEH-Seminar-427)	Bad Honnef, Germany
2009 (invited)	74th Israel Chemical Society meeting	Tel Aviv, Israel
2009 (invited)	Molecular switches	Schloss Salzau, Germany
2009 (invited)	International Congress of Quantum Chemistry	Helsinki, Finland
2009 (invited)	Workshop on Vibrational Dynamics	Telluride, Co
2009 (invited)	Molecular Modeling	Queensland, Australia
2009(organizing comm+invited)	Quantum transport on the molecular scale	Bremen, Germany
2010 (invited)	International Conference on Molecular Electronics	Emmetten, Switzerland
2010 (invited)	Meeting of the German Physical Society	Regensburg, Germany
2010 (Invited)	American Chemical Society meeting	Boston
2010 (Invited)	Gordon Research Conference on electron donor-acceptor interactions	Newport, RI, USA
2010 (invited)	Inelastic Transport Phenomena	San Sebastian, Spain
2010 (invited)	Psi-k meeting	Berlin
2010 (invited)	Solvay Conference	Brussels
2010 (invited)	Exploratory Workshop on Nontrivial Quantum Effects in Biomolecular Systems	Capri

2010 (invited)	Heat control and thermo-electric efficiency	Erice, Sicily
2011 (Invited)	American Chemical Society meeting	Anaheim, CA, USA
2011 (Invited)	India-NWU-Israel meeting	Evanston, IL. USA
2011 (Invited)	Noise in Non-Equilibrium Systems	Dresden, Germany
2011 (Invited)	Charge Transfer in Biosystems	Obergurgl, Austria
2011 (Invited)	Simulation and modelling in emerging electronics	Hongkong
2012 (Invited)	Quantum Molecular Dynamics	Berkeley, USA
2012 (Invited)	Plenary lecture, Israel Chem. Soc. Meeting	Israel
2012 (Invited)	International Symposium on Molecular Switches	Potsdam, Germany
2012 (Organizer)	Workshop on Molecular electronics	Jerusalem Israel
2012 (Invited)	Condensed Phase Dynamics	Telluride, CO, USA
2012 (Invited)	Electronic and Magnetic Properties of Chiral Structures and their Assemblies	Telluride, CO, USA
2012 (Invited)	Gordon conference on vibrational spectroscopy	Biddeford, ME, USA
2012 (Invited)	Energy Materials tutorial and workshop	London, England
2012 (Invited)	International Congress of Quantum Chemistry	Boulder, CO, USA
2012 (Invited)	ACS meeting	Philadelphia, USA
2013 (invited)	NCCRs workshop on Energy Transfer in Molecular Systems	Engelberg, Switzerland
2013 (invited)	Quantum transport on the molecular scale	Bremen, Germany
2013 (invited)	Hybrid particle-continuum methods in computational materials physics	Juelich, Germany
2013 (invited)	Exciton dynamics	Ein Gedi, Israel (February)
2013 (invited)	Light-matter interactions	Ein Gedi, Israel (April)
2013 (invited)	Quantum Transport in Nanoscale Molecular Systems	Telluride, CO, USA



2013 (invited)	CECAM: Thermal Transport at the Nanoscale	Telluride, CO, USA
2013 (invited)	CECAM: Nano-phononics	Bremen, Germany
2013 (invited)	ACS meeting	Indianapolis, USA
2013 (invited)	CECAM: Quantum Dynamics in Molecular and Nano-Materials	Tel Aviv, Israel
2014 (invited)	ACS meeting	Dallas, USA
2014 (invited)	Linear and non-linear Raman spectroscopy in the single molecule limit	Irvine, CA, USA
2014 (invited)	Condensed Matter in Paris	Paris
2014 (invited)	Molecular-Scale Electronic Processes	Konstanz, Germany
2015 (invited)	ACS meeting (Symposium on Electronic Structure Methods for Highly Polarizable Systems)	Denver, Co. USA
2015 (invited)	Quantum Transport in Nanoscale molecular systems	Telluride, Co. USA
2015 (invited)	SPIE optics and photonics meeting	San Diego, CA, USA
2015 (Organizer)	PCTC: energy conversion	Philadelphia, USA
2015 (invited)	Fritz Haber Symposium on Molecular dynamics	Jerusalem, Israel
2015 (Organizer)	Molecular Electronics: 50 years later	Maale Hahamisha, Israel
2015 (invited)	Symposium on the Future of Physical Chemistry	Berlin, Germany
2015 (invited)	Bat Sheva Symposium: Current Challenges in Chemical Dynamics	Neve Ilan, Israel
2015 (invited)	Inter-academy symposium of the Israel national Academy of Science and Humanities and the German National Academy of Science, Leopoldina	Jerusalem, Israel
2015 (invited)	Perspectives in Nano information Processing	Cambridge, England
2016 (invited)	Nanotechnology from Academy to Industry	Holon, Israel
2016 (invited)	Workshop on Thermal Transport at the nanoscale	Telluride, CO, USA
2016 (invited)	Workshop on Condensed Phase Dynamic	Telluride, CO, USA

2016 (invited)	International Conference on Charge Carrier Dynamics at the Nanoscale (CCDNano16)	Berlin, Germany
2016 (organizer)	PCTC: Light-Matter Interactions	Philadelphia, USA
2016 (organizer)	ACS Physical Chemistry division Symposium: Dynamics of Natural and Artificial Systems For Energy Conversion: Insights Gained from Spectroscopic Methods and Theory	Philadelphia, USA
2016 (invited)	Conference on New Trends in Quantum Heat and Thermoelectrics	Trieste, Italy
2016 (invited)	Symposium on Frontiers in Light-Matter Interaction	IBS, Gwangju, S. Korea
2017 (invited)	Bridging the Worlds of Electromagnetic and Quantum Simulations	Tel Aviv, Israel
2017 (invited)	Frontiers of Quantum and Mesoscopic Thermodynamics	Prague, Czech Republic
2017 (invited)	American Conference on Theoretical Chemistry	Boston, Mass. USA
2017 (invited)	Transport at the nano scale	Cuernavaca, Mexico
2017 (invited)	American Chemical Society meeting	Washington DC, USA
2017 (invited)	From molecular beams to Photosynthesis (in honor of Ron Naaman)	Rehovot, Israel
2017 (invited)	Quantum conductance and forces across molecular junctions	New York, NY, USA
2017 (organizer)	Philadelphia Conference on Theoretical Chemistry	Philadelphia, PA, USA
2018 (invited)	Physics of Quantum Electronics	Snowbird, Utah, USA
2018 (invited)	BioMolecular Electronics,	Madrid, Spain
2018 (invited)	Grand Challenges in the Chemical Sciences	Israel Academy of Science
2018 (invited)	Nonequilibrium Transport through Nanostructures	Hamburg, Germany
2018 (invited)	Theory of Nonadiabatic Processes	Jerusalem, Israel
2018 (invited)	Nano Israel 2018	Jerusalem, Israel
2019 (invited)	Berkeley Statistical Mechanics Meeting	Berkeley USA

2019 (invited)	APS meeting	Boston, USA
2019 (invited)	Quantum Measurement: Fundamentals, Twists and Applications	Trieste, Italy
2019 (invited)	Frontiers of Quantum and Mesoscopic Thermodynamics	Prague, Czech Republic
2019 (invited)	Quantum Transport in Nanoscale molecular systems	Telluride, USA
2019 (invited)	Charge and Energy Transfer Processes: Open Problems in Open Quantum Systems	Banf International Research Station, Canada
2019 (invited)	Controlled Nanosystems	Konstanz Germany
2020 (invited)	International Conference on Molecular-scale Charge and Thermal Transport	Engelberg Switzerland
2020 (invited)	APS meeting (lecture given by A. Semonov)	Denver, CO, USA
2020 (Invited)	ACS meeting	Virtual
2021 (invited)	ACS meeting	Virtual
2021 (invited)	10 <sup>th</sup> International Conference on Molecular Electronics	Lyon, France
2021 (invited)	Pacificchem (Congress of the Pacific Basin Societies)	Virtual
2022	ACS meeting (Lecture given by T. Li)	San Diego, USA
2022 (invited)	ACS meeting (Lecture given by J Subotnik)	San Diego, USA
2022 (invited)	ACS (Middle Atlantic Regional) Meeting	Ewing, NJ, USA
2022 (invited)	ACS (Southeastern regional) Meeting	San Juan, PR
2022 (invited)	Workshop on Molecular Quantum Technology	Puerto Natales, Chile
2022 (invited)	Symposium on Molecules in Optical Cavities	Strasburg, France
2023 (invited)	MRS spring meeting	San Francisco
2023 (invited)	Electronic transport in molecular quantum conductors	Rehovot Israel
2023 (invited)	Workshop on polaritonic chemistry	Hamburg
2023 (invited)	Brus Symposium	New York City

2024 (invited)	Gordon conference on electron transfer	Rhode Island
2024 (invited)	New Advances in Theoretical and Computational Molecular Sciences for Complex and Quantum Processes	Seoul
2024 (invited)	Electron Spin in Chiral Matter	Sigtuna (Sweden)
12-2024		Bad Honef, Germany
12-2024		Mumbai, Bangalore

**EDITORIAL BOARDS**

Editorial Board, Journal of Physical Chemistry –2002 - 2005

Editorial Board, Journal of Chemical Physics – 2007-2009

Editorial Board, Computational and Theoretical Nanoscience – 2004-2017

Divisional Associate Editor, Physical Review Letters – 2006 - 2011

Israel Journal of Chemistry – 2010-17

Entropy -- 2019-

**OTHER TASKS**

2006-2011	Review Panel for DFG-Priority Programme 1243 "Quantum transport on the molecular scale"
2007	Review Panel for the US Department of Energy Call "Basic Research for Solar Energy Utilization; Panel 2: "Inorganic Photo Voltaics and Nanomaterials"
2009-2013	External Referee for ERC Advanced Grants
2011 -	Advisory Board, Batsheva Foundation, Israel
2012	Review Panel for DFG program on clusters of excellence (EXC) and graduate schools
2016	Evaluation Panel for the position of Associate Director at the Institute of Basic Science 'Center for Relativistic Laser Science', S Korea

2019	Evaluation Panel for NSF
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### **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

#### **Year            Society (Country)**

1977-	American Physical Society (USA)
1977-	Israel Chemical Society
1990-	Material Research Society (USA)
1985-	American Chemical Society (USA)
1997-	American Association for the Advancement of Science (USA)
2006-	American Academy of Arts and Sciences
2009-	Israel Academy of Science and Humanities
2015-	US National Academy of Science

### **M.Sc. STUDENTS SUPERVISED**

1978-80	Tuvia Cohen	Tel Aviv University	Energy Transfer in Systems of Coupled Unharmonic Oscillators
1980-84	Zvi Kotler	Tel Aviv University	Enhanced Electromagnetic Processes Near Small Dielectric Particles and in Composite Films
1982-84	Naomi Liver	Tel-Aviv University	Optical Properties of Molecules adsorbed on rough surfaces
1984-86	Lea Tina	Tel-Aviv University	Reactions in Condensed Phases.

**ABRAHAM NITZAN, Ph.D.****University of Pennsylvania**

1990-91	David Hurwitz	Weizmann Institute	Tests of Numerical Grid Algorithms for solving Schrodinger Equation.
2000-03	Vered ben Moshe	Tel Aviv University	Potential distribution in molecular wires
2002-05	Ronit Wexler	Tel Aviv University	Polar Solvent Effect on Vibrational Spectra: OD in H <sub>2</sub>
2011-13	Noa Freifeld	Tel Aviv University	Electromagnetic response of nanoparticle clusters

**DOCTORAL STUDENTS SUPERVISED**

1979-83	Benny Carmeli	Tel-AvivUniversity	Stochastic Methods in Molecular Dynamics
1984-89	Zvi Kotler	Tel-AvivUniversity	Quantum Effects in Condensed Phase reactions
1987-90	Ron Granek	Tel-AvivUniversity	Transport in Polymeric Ionic Conductors
1988-93	Guy Makov	Tel-AvivUniversity	Electronic Processes in Small Particles
1987-93	Eyal Neria	Tel-AvivUniversity	Dynamics of Solvation Processes
1990-95	Roberto Olender	Weizmann Institute	Ionic Solvation in Conducting Polymers
1991-98	Dorita Rostkier	Tel Aviv university	Electron transfer in polar solvents
1991-95	Alexander Mosyak	Tel Aviv University	Molecular Dynamics at interfaces
1997-02	Michael Galperin	Tel Aviv University	Electron transfer at interfaces
1997- 03	Dvira Segal	Tel Aviv University	Numerical investigations of electron tunneling phenomena
1999- 03	Silviu Zilberman	Tel Aviv University	Numerical simulations of microscopic friction phenomena

**ABRAHAM NITZAN, Ph.D.****University of Pennsylvania**

2003-09	Vered Moshe	Ben Tel University	Aviv	Electronic Conduction Properties of Molecular Junctions
2008-14	Michal Oren	Tel University	Aviv	Optical properties of molecular junctions
2008-	Inon Sharoni	Tel University	Aviv	Thermal conduction in molecular junctions
2014-	Noa Freifeld	Tel University	Aviv	Interfacial optical processes controlled by plasmon-exciton interactions
2016-21	Renai Chen	U of Pennsylvania		Heat transport in molecular junctions
2017-23	Monosij Mondal	U of Pennsylvania		Molecular transport phenomena in electromagnetic cavities
2018-23	Zeyu Zhou	U of Pennsylvania		Understanding light-induced processes with mixed quantum-classical formalisms
2023-	Jichen Chen	U of Pennsylvania		

**POST DOCTORATE FELLOWS**

P. Salamon (1981-2), Z. Kirson (1983-4), B. Whaley (1985-6), D. Evans (1997-8), P. Graf (1997-9), M. Kurnikova (2000-2001), A. Troisi (2003), M. Jouravlev (2007-8), A. Landau (2007-8), J. Subotnik (2008-2010), G. Li (2008-9), D. Rai (2009-2011), M. S. Shishodia (2010-11), P.R. Schiff (2009-2010), A. Migliore (2009-12), M. Einax (2010), O. Godsi (2010-13), S. K. Maiti (2012-13), K. Kaasbjerg (2012-14), M. Einax (2013-15), Galen Craven(2015-), Maicol Ochoa(2015-17), J. Kumar (2015-16), Alexander Semenov (2017-20), Mohammadhasan (Hadi) Dinpajoo (2019-21), Bingyu Cui (2020 - 23), H. Kirchberg (2021-24), Claudia Climent (2021-), Shah Tanvir ur Rahman Chowdhury (2023-)

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3. Dynamics of Molecular Processes  
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4. Perspectives in Chemistry  
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Special issue in honor of Prof. Joshua Jortner with S. Berry, O. Cheshnovski, J. Klafter and S. Rice.
5. The Spin-Boson Problem  
Chemical Physics, 2004, V 296, N2-3 (special issue, with H. Grabert)

**INVITED LECTURES AT SCIENTIFIC MEETINGS**

1. Molecular Radiationless Transitions, the intermediate case, on Radiationless Transitions, (Boulder, Colorado, USA 1972).
2. Effect of Vibrational Relaxation on Molecular Electronic Transitions, Gordon Conference on Energy Transfer (New Hampshire, USA, 1973).
3. Chemical Instabilities in Illuminated Systems. Photochemistry, Austin (1990).
4. Renormalization Group and Critical Localization, Gordon Conference on Critical Phenomena, (New Hampshire, USA, 1975).
5. Chemical Instabilities as Critical Phenomena Synergetics, (Schloss Altau, Germany, 1976).
6. Resonance Raman Scattering from Thermally Relaxing Systems. (5th International Conference on Raman Spectroscopy, Germany, 1977).

7. Raman Scattering from Thermally Relaxing Systems: Interference Effects. (Conference on Raman Scattering, Bangalore, India 1975).
8. High Energy Molecular Photochemistry (Synchrotron Radiation, Gif Sur Yvette, France, 1978).
9. The Origin of the Master Equation for Collisionless Multiphoton Excitation of Large Molecules (Laser Chemistry, Ein Bokek, Israel 1978).
10. Random Coupling Models for Intramolecular Dynamics (Dynamics of Systems with Many Accessible States, Munich 1979).
11. The Critical Behavior of Nonequilibrium Transitions in Reacting Diffusing Systems. (Symposium on Synergetics, Bielefeld 1979).
12. Time Evolution of Isolated Nonequilibrium Systems: The Pauli Master Equation Revisited. (Symposium on Statistical Mechanics, Sitges, Spain 1980).
13. Intramolecular Relaxation and the Time Evolution of Molecular Fluorescence (Conference on Radiationless Transitions, Israel 1980).
14. Surface Enhanced Resonant Electromagnetic Processes (Gordon Research Conference on Dynamics of Surface Processes, Plymouth, N.H., USA 1981).
15. Enhanced Photochemistry on Rough Dielectric Surfaces (10th Int. Conf. on Photochemistry, Iraklion, Crete, 1981).
16. Surface Enhanced Raman Scattering (BatSheva Seminar on Metal and Semiconductor-Electrolyte Interphase, Ein Gedi, Israel, 1981).
17. Photophysical Properties of Molecules Adsorbed on Dielectric Surfaces. (Annual meeting of the Israel Chemical Society, Beer Sheva, Israel 1981).
18. E. Ben Jacob, D. Bergman, B. Carmeli and A. Nitzan  
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19. Average Local Field Enhancement in Composites and Films. Midwest Theoretical Chemistry Conference, Michigan USA 1982.

20. Optical Properties of Molecules Adsorbed on Dielectric Surfaces. Gordon Conference on Vibrational Spectroscopy, New Hampshire, USA 1982.
21. Enhancement of Raman Scattering, Resonance Raman Scattering and Fluorescence of Molecules Adsorbed on Silver Island Films. International Conference on Vibrations at Surfaces, California USA 1982.
22. Friction Effects on Chemical Dynamics in Condensed Phases. United States-Israel Binational Conference on Excited State Dynamics. Jerusalem, Israel 1984.
23. Resonance Optical Processes Involving Adsorbates on Solid Surfaces. International Symposium on Spectroscopy of Adsorbates on Solid Surfaces, Osaka, Japan. 1984.
24. Photophysics of Adsorbed Molecules. International Symposium on Metal and Semiconductor/Electrolyte Interfaces. Ein Bokek, Israel 1986.
25. Quantum Mechanical Simulations of Tunnelling Systems, Jerusalem Symposium on Tunnelling, Jerusalem 1986.
26. Path-Integral Approach to Electrostatic Phenomena in Inhomogeneous SystemsX International Conference on Raman Spectroscopy, Eugene, Oregon, USA 1986
27. Dynamic Bond Percolation Theory for Polymeric Ionic Conductor, Bar Ilan International Meeting on Disordered Systems, Ramat Gan 1987.
28. Fast Ion Conduction: Some Theoretical Issues (with M. Ratner) 6th International Conference on Solid State Ionics Germany 1987.
29. Dynamics on Ionic Motion in Polymeric Ionin Conductors 6th International Conference on Solid State Ionics Germany 1987.
30. Inelastic Electron Tunneling Spectroscopy in the Tunneling Electron Microscope Configuration, Conference on Scanning Tunneling Electron Spectroscopy and Microscopy, USA 1987.

31. Quantum Mechanical Simulations of Electron Solvation in Water Clusters.

Symposium on "Path Integral Methods in Multiparticle Dynamics" APS Meeting, New Orleans, 1988).

32. Dynamic Percolation Theory on Ionic Motion in Conducting Polymers.

Symposium on "Ionic Conductors" APS Meeting (New Orleans 1988).

33. Quantum Dynamical Simulations of Chemical Processes in Condensed Phases. Conference on the Role of Nonlinear Dynamics in Reaction Kinetics (Lake Arrowhead, California, 1988).

34. Photophysical Processes Involving Small Particles and Clusters.

Symposium on Photoprocesses at Surfaces, 3rd North American Congress (Toronto Canada, 1988).

35. Reaction Dynamics in Finite Condensed Phases.(ACS Meeting Los Angeles,1988).

36. Multiconfigurational TDSCF Simulations Workshop on Spectral Grid Methods Mechanical Calculations (Orsay France 1988).

37. Spectroscopy and Relaxation Dynamics of the Solvated Electron.

Gordon Conference on Energy Transfer, New Hampshire, USA (1989).

38. Dynamic Percolation Theory.

Gordon Conference on Ionic Conductors, New Hampshire, USA (1989).

39. Dynamic Percolation Theory.

Meeting on Reaction Dynamics in Condensed Systems, Bayrouth, Germany(1990)

40. Dynamic Percolation Theory.

International Workshop on Relaxation in Complex Systems, Crete (1990).

41. External Force Effects on the Dynamics of Barrier Crossing.

International Meeting on Chemical Reactions in Condensed Systems, Tutzing, Germany (1990).

42. Classical Dephasing.

International Meeting on Noise in Non-Linear Systems, Berlin, Germany (1990).

43. Thermodynamics of Ion Solvation in Complex Fluids.  
Symposium on Ionic Conductors, MRS Meeting, Boston, USA (1990).
44. Ion solvation and association in complex systems: Theoretical considerations.  
International Conference on Polymer Ionic Conductors. Annecy, France (1991).
45. Quantum and classical solvation.  
VII International Symposium on Ultrafast Processes in Spectroscopy. Bayreuth, Germany (1991); James Franck Symposium, Germany (1991); Israel Chemical Society Meeting, Technion (1992); 2nd Symposium on Molecular Reaction Dynamics in Condensed Phases, Newport, USA (1992).
46. Adiabatic and non-adiabatic solvation.  
Joint USA-Israel workshop on computational Chemistry, Berkeley, USA (1992).
47. Chemical dynamics in condensed phases.  
International School on Chemical Physics, Merida, Venezuela (1992).
48. Numerical simulations of non-adiabatic processes in condensed phases.  
2nd Japan-Israel Joint Symposium in Molecular Dynamics and Reactivity, Okazaki, Japan (1992).
49. Quantum and classical solvation.  
Israel-China Joint Symposium, Beijing, China (1992).
50. Solvation dynamics in polar fluids.  
GIF meeting, Jerusalem, Israel (1993)
51. Numerical simulations of non-adiabatic processes in condensed phases.  
Jerusalem Symposium on Dynamics of Molecular Processes, Israel (1993)
52. Electron thermalization and solvation: Quantum and classical aspects.  
VIth International Conference on Time Resolved Vibrational Spectroscopy, Berlin, Germany (1993).
54. Ion solvation and ionic dissociation in macromolecular solvents.

Meeting on Dynamical Processes in Condensed Molecular Systems, Garchy, France(1993).

55. Solvation dynamics in electrolyte solutions.  
International meeting on Ultrafast Processes in Condensed Phase Chemical Systems. France (1993).

56. Ion solvation and ionic dissociation in macromolecular solvents: Applications to polymer ionic conductors.  
2nd International Discussion Meeting on Relaxations in Complex Systems, Alicante, Spain (1993).

57. Solvation dynamics: Linear and non-linear response  
Okazaki Conference on Chemical Dynamics in Condensed Phases. Okazaki, Japan, 1993

58. Quantum and Classical Solvation  
Meeting of the Japan Chemical Society, Japan Chemical Society Meeting, Hiroshima, 1993.

59. Numerical simulations of polymer electrolytes  
International Symposium on Polymer Electrolytes, Rhode Island, U.S.A (1994)

60. Solvation dynamics in simple and complex solvents  
Israel-China meeting, Jerusalem, 1995.

61. Solvation dynamics: Linear and non-linear response.  
International workshop on laser physics, NYC, USA (1994)

62. Numerical simulation of charge transfer processes  
46th Annual Meeting of the International Society of Electrochemistry, Xiamen, China (1995).  
Meeting on Structure and dynamics in Chemistry and biodisciplines, Prague, Czech Republic (1996)

63. Electron transmission through condensed molecular layers  
Conference on Ultrafast Processes, Lille, France (1995),  
Symposium on charge transfer, Trieste, Italy(1996)  
Symposium on electrode phenomena, ACS meeting, Orlando Florida, USA (1996)

Symposium on Electrons in molecular wires and biosystems, Tegernsee, Germany (1997)

Workshop on the dynamics of Nanostructures (Gif sur-Yvette, France 1999)

SFB symposium, Munich 1999

64. Dynamics and thermodynamics of polymer ionic conductors  
James Franck Symposium, Ein Gedi, Israel (1997).

65. Ultrafast solvation

Meeting on Ultrafast Phenomena in Condensed phases, Ein Gedi, Israel (1998)

16th Int. Conf. On Coherent and non-linear optics, Moscow (1998)

66. Resonance effects in electron tunneling

Workshop on Chemical Reaction Dynamics (Telluride, USA, 1998)

67. Electron transmission in water.

Meeting of the International Society of electrochemistry, Italy (1999)

68. Electron transmission through molecules: Thermal effects

Sweden-Israel symposium on Chemical Dynamics at surfaces, Sweden (1999)

69. Electron transmission through molecular layers

SFB Symposium (Germany 1999); APS Meeting (USA, 2000); Workshop on Chemical reaction dynamics (Telluride, USA, 2000); Quantum and Classical Transport (Ustron, Poland (2000)

70. Electron transmission through molecular layers: Inelastic effects

Driven Quantum Systems (Tutzing, Germany 2000); Molecular Electronics (Kona, Hawaii, USA, 2000), Electron Transport on the Molecular Scale (Dresden, Poland, 2001); Israel Chemical Society Meeting (Jerusalem, Israel, 2002), Quantum Dynamics of Condensed Phase Systems (Crete, 2002)

71. Simulations of ionic conduction in inhomogeneous dielectric environments.

Multiscale Phenomena (Eilat, Israel, 2000)

72. Ion transport in confined inhomogeneous dielectric environments.

American Chemical Society Meeting (Orlando, USA, 2002); Workshop on Stochastic Dynamics in condensed systems (Konstanz, Germany,



2002); Diffusion Assisted Reactions (Seul, 2002)

73. How molecules conduct?

Workshop on Molecular wires and devices (Laramie, 2002); Israel Chemical Society Meeting (Tel Aviv, 2003)

74. Numerical simulation of tunneling currents .

American Conference on Theoretical Chemistry (Champion, 2002), Symposium for Theoretical Chemistry (Bremen, 2002), Currents, trajectories and their applications in quantum dynamics (Lion, 2002); Israel Theoretical Chemistry meeting (Jerusalem, 2002)

75. Heat transport through molecules.

Chemical Reaction Dynamics (Telluride, 2002)

76. Potential distribution in biased molecular junctions.

6th Engineering Foundation Conference on Molecular Electronics (Key West, 2002), 38<sup>th</sup> IUVESTA Workshop (Electronic processes and sensing on the nanoscale), Eilat, 2003.

77. Ion transport in restricted environments

American Chemical Society Meeting (New Orleans, 2003)

78. Electron tunneling resonances in water: signature of conduction band states?

American Chemical Society Meeting (New York City, 2003)

79. Quantum mechanical and electrostatic considerations of electron transport across metal/molecular layer/metal systems

WE-Heraeus-Seminar, (Bad Honnef, Germany, 2003)

80. Heating in current carrying molecular junctions

Material Research Society Meeting (Boston, 2003)

81. Timescale considerations in electron transfer and electron transmission

Meeting on Nonadiabatic Processes at the Gas-Surface Interface (Ein Gedi, Israel, 2004)

82. Mechanisms for current rectification in molecular junctions

Material Research Society Meeting (San Francisco, 2004)

83. Heating and heat conduction in molecular wires

Advances in Molecular Electronics: from molecular materials to single-molecule devices (Dresden, 2004)

84. Introduction to electron transport in molecular systems  
The 5<sup>th</sup> International Wilhelm and Else Heraeus Summer School:  
Molecules – Building blocks for future Nanoelectronics (Wittenberg,  
Germany, 2004)

85. Inelastic effects in molecular conduction  
Chemical Reaction Dynamics (Telluride, 2004), Molecular Conduction  
Workshop (Evanston, 2004), Quantum and semiclassical molecular  
dynamics of nanostructures (Los Alamos, 2004), American Physical  
Society Meeting (Los Angeles, 2005), Trends in Nanotechnology  
(Oviedo, Spain, 2005), Trends in Nanoscience – Structure and Function  
(Irsee, Germany, 2005)

86. Numerical evaluation of inelastic effects in electron tunneling  
Classical and quantum simulations in chemical and biological physics  
(Dresden, 2005)

90. Optical effects in molecular conduction  
MRS Meeting (Boston, 2005)

91. Heat transport in molecular junctions  
CECAM workshop (Lyon 2006), Safed workshop on cooling and  
thermodynamics (Safed, 2007)

92. Fundamentals of molecular conduction  
College on: Science at the nanoscale (Beijing, China, 2006); Minerva  
School on Unique Molecular Effects in Electronic Materials and Devices  
(Safed, 2007)

93. Inelastic effects in molecular conduction: inelastic spectra, resonant  
tunneling and noise.  
“Nanophysics: from Fundamentals to applications”, Hanoi, Vietnam  
(2006)  
“Quantum transport at the molecular scale”, Bad Honnef, Germany,  
2006.

94. Electron transfer and molecular conduction  
ACS meeting, San Francisco, 2006.

95. Current noise in molecular junctions: Elastic and inelastic effects

Physics of Fluctuations far from Equilibrium, (Dresden, 2007)

96. Cooperative effects in molecular conduction  
ACS meeting (Boston, 2007, Bad Honnef, 2009)

97. Molecular conduction and beyond  
International symposium on theories of metal/organic interfaces (Osaka, 2007)  
Fritz Haber Symposium: Conduction in molecular junctions (Yad Hashmona, Israel, 2007, GRC 2008, Princeton 2008, Sidney 2009)

98. Transport, localization and fluctuations in molecular wires  
392th WE-Heraeus Seminar on 'Transport, Localization, and Fluctuations in Complex Systems' (Ilmenau, 2007)

99. Heating and heat transfer in molecular junctions (Singapore 2008; Telluride 2009)

100. Current transfer phenomena (Teluride 2008, Telluride 2009, Bremen 2009, Emmeten, Switzerland 2010, Capri, 2010)

101. Modeling molecular conduction (Brisbane, Australia 2009)

102. Heating, heat conduction and cooling in molecular junctions (DPG (German Physical Society) meeting, Regensburg 2010, Erice, 2010, Telluride 2012)

103. Current transfer, circular currents and magnetic field effects in molecular junctions (Gordon conference, RI 2010, ACS Anaheim 2011; Telluride, 2012)

104. Optical and heating phenomena in molecular conduction junctions (Evanston, 2011)

105. Unidirectional hopping transport of interacting particles on a finite chain (Dresden, 2011)

106. Electromagnetic and magnetic effects in molecular conduction (Berkeley, 2012, Israel ICS 2012, Potsdam 2012)

107. Redox molecular junctions: Properties and functionalities (Energy Materials, London, 2012; ICQC, Boulder, 2012; ACS Philadelphia, 2012; Cambridge 2015)

108. Vibrational heating, electronic heating and heat transport in molecular junctions (Gordon conference on vibrational spectroscopy, 2012)
109. Excitonic effects in molecular electronics and molecular plasmonics (Workshop on Exciton dynamics, Ein Gedi, 2013)
110. Non-Hermitian quantum mechanics in molecular transport problems (Workshop on Light-Matter interactions, Ein Gedi, 2013)
111. Numerical simulations of the optical response of atomic clusters (Workshop on Hybrid Particle-Continuum Methods in Computational Materials Physics; Jülich, Germany, 2013)
112. Light in molecular conduction junctions (CECAM-Workshop "Molecular electronics: Quo vadis?", (Bremen, Germany, 2013; SPIE Optics and Photonics meeting, San Diego, 2015)
113. Optical and magnetic phenomena involving excitons, plasmons and electrons at molecules-metal interfaces (ACS meeting Indianapolis 2013 Telluride workshop on molecular electronics, 2013)
114. Manifestations of vibrational response, heating and heat transport in molecular conduction junctions (CECAM workshop on nanophononics, Bremen, 2013, Telluride workshop on heat conduction, 2013)
115. Spectroscopic manifestations of inelastic tunneling in molecular conduction junctions (ACS meeting, Dallas, 2014)
116. Network analysis of the performance of organic photovoltaic cells (Condensed Matter in paris, 2014; Molecular electronics, Copenhagen, 2015)
117. Light and Current, Workshop on Linear and non-linear Raman spectroscopy in the single molecule limit, Irvine, CA ,USA, 2014
118. Circular currents, magnetic field effect and spin selectivity in molecular junction transport, Molecular-Scale Electronics (Konstanz, 2014; Telluride, 2015)

119. Numerical simulations of the optical response and energy transfer coupled exciton-plasmon systems, (ACS meeting, Denver, 2015; Bat Sheva Symposium on molecular dynamics, 2015)
120. Landau-Zener evolution under weak measurement, Interacademy symposium, Jerusalem, 2015
121. Electron Transfer and Transport at the nanoscale, FHI Symposium on the future of physical chemistry, 2015.
122. Electron transfer across thermal gradients, Telluride Workshop on heat transport at the nanoscale, 2016; Conference on New Trends in Quantum Heat and Thermoelectrics, Trieste, 2016; ACTC Boston 2017; From molecular beams to Photosynthesis, Israel 2017; Frontiers of Quantum and Mesoscopic Thermodynamics, Prague 2017; CUNY meeting on Quantum conductance and forces across molecular junctions, 2017, Workshop on non-equilibrium transport in nanojunctions, Hamburg, 2018; Controlled Nanosystems (Konstanz 2019)
123. Transport and Spectroscopy in illuminated molecular Junctions, Symposium on Frontiers in Light-Matter Interaction, Guangju, Korea 2016; Meeting on transport at the nanoscale, Cuernavaca, Mexico 2017; Cecam -Bridging the Worlds of Electromagnetic and Quantum Simulations, Tel Aviv 2017.
124. What makes redox junctions, International Conference on Charge Carrier Dynamics at the Nanoscale, Berlin, 2016; Nanotechnology, from Academy to Industry, Holon, Israel, 2016.
125. Quantum Thermodynamics of non-equilibrium nano-systems, Telluride workshop on Condensed Phase Dynamics, 2016, Statistical Mechanics (Berkeley, 2019)
126. Electron-plasmon and electron-exciton interactions in molecular junctions, ACS Washington DC, 2017.
127. Energy transfer and conversion in molecular junctions, Physics of Quantum Electronics, Snowbird, Utah, 2018, APS meeting, Boston 2019.
128. Time evolution of the landau-zener problem under weak measurement,

Jerusalem Nonadiabatica, 2018

129. Charge Transport Through Redox Molecular Junctions, Psi-k research conference: BioMolecular Electronics, Madrid, Spain, 2018, ACS meeting (virtual), spring 2021

130. Molecular electronics and plasmonics: Electrons, light and heat transport at the nanoscale, The Grand Challenges in the Chemical Sciences, Israel Academy of Science, 2018

131. Thermodynamics of strongly coupled driven quantum systems, Charge and Energy Transfer Processes: Open Problems in Open Quantum Systems (BIRS, Banff (Canada)), 2019. Frontiers of Quantum and Mesoscopic Thermodynamics (Prague, 2019)

132. Thermal Transport on the nanoscale: Vibrational heating, electronic heating and heat transport in molecular junctions, TSRC (Telluride), 2019.

133. Continuous simultaneous measurement of position and momentum: the classical limit and the problem with time, Quantum Measurement: Fundamentals, Twists and Applications (Trieste, Italy, 2019)

134. Molecular conduction and beyond: Electrons, light and heat transport at the nanoscale, MSCTT 2020, Engleberg (Switzerland)

135. Electron transfer in confined electromagnetic fields (APS meeting, Denver 2020)

136. Redox molecular junctions and thermal effects (Molecular Electronics, Lyon, France 2021 and ACS Puerto Rico 2022))

137. Energy, work, entropy and heat balance in Marcus-Hush molecular junctions (Pacifichem, 2021)

138. Molecules in nano-conduction-junctions and optical cavities: Electron transfer and transmission, Polaritons, vibrational strong coupling and collective response (ACS mid-Atlantic Regional meeting (Ewing, NJ, 2022)), MRS San Francisco 2023, Strasbourg, 2022).

