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

February 2018

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
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

VISITING APPOINTMENTS

Period	**Institute**	**Department**	**Function**
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
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

Year	Subject	Place
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)	Synchrontron 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 Moleculr 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 Arrowwhead, 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 Hamphire, USA
1989 (Invited)	Gordon Conference on Ionic Conductors	New Hamphire, 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 Metting 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)	2nd Czech-Israeli Symposium on Chemical Dynamics	Jerusalem, Israel
1998 (Int. Advisory Committee +invited)	16th 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	Minneapois, Mn, USA
2000 (invited)	Multiscale Phenomena	Eilat, Israel
2000 (invited)	Chemical reaction dynamics	Telluride, USA
2000 (invited)	Driven Quantum Systems	Tutsing, 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	Seul, Korea
2002 (invited)	Worksop 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 5th International Wilhelm and Else Summer School on molecular electronics	Wittenberg, Germany
2004 (invited)	2nd 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 molecularnanostructures	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 inNanotechnology	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	Bejing, 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)	Nanoscopic 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 Ttheory	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 Ssystems	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

EDITORIAL BOARDS

Editorial Board, Journal of Physical Chemistry –2002 - 2005

Editorial Board, Journal of Chemical Physics – 2007-2009

Editorial Board, Computational and Theoretical Nanoscience – since 2004

Divisional Associate Editor, Physical Review Letters – 2006 - 2011

Israel Journal of Chemistry – Since 2010

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

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.
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_2
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
2003-09	Vered Ben Moshe	Tel Aviv University	Electronic Conduction Properties of Molecular Junctions
2008-14	Michal Oren	Tel Aviv University	Optical properties of molecular

			junctions
2008-	Inon Sharoni	Tel Aviv University	Thermal conduction in molecular junctions
2014-	Noa Freifeld	Tel Aviv University	Interfacial optical processes controlled by plasmon-exciton interactions
2016-	Renai Chen	U of Pennsylvania	Heat transport in molecular junctions
2017-	Monosij Mondal	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), 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), Jishad Kumar (2015-16), Alexander Semonov (2017-)

LIST OF PUBLICATIONS

PATENTS

L.E.Brus and A.Nitzan
Chemical processing using electromagnetic field enhancement
U.S.A patent 4481091, Nov,6,1984.

BOOKS

A. Nitzan
Chemical Dynamics in Condensed Phases
Oxford University Press, 2006 (744 pages)

SUBMITTED

M. A. Ochoa, W. Belzig and A. Nitzan
Simultaneous weak measurement of non-commuting observables

IN PRESS

T. Li, A. Nitzan, M. Sukharev, T. Martinez, H.-Ta Chen, and J. E. Subotnik
Mixed Quantum-Classical Electrodynamics: Understanding Spontaneous Decay and Zero Point Energy
Phys. Rev. A.

ARTICLES

342. Galen T. Craven and Abraham Nitzan
Upside/Downside statistical mechanics of nonequilibrium Brownian motion. I. Distributions, moments, and correlation functions of a free particle
J. Chem. Phys **148**, 044101 (2018); https://doi.org/10.1063/1.5007854

341. Maicol A. Ochoa, N Zimbovskaya and A. Nitzan
Quantum thermodynamics for driven dissipative bosonic systems
Physical Review **B 97**, 085434 (2018)

340. N Zimbovskaya and A. Nitzan
Thermally induced charge current through long molecules
J. Chem. Phys. **148**, 024303 (2018) (9 pages)

339. M. Sukharev and A. Nitzan
Optics of exciton-plasmon nanomaterials
J. Phys.: Cond. Matt. **29**, 443003 (2017) (34 pages)

338. R. Chen, G. Craven and A. Nitzan, Electron-transfer-induced and phononic heat transport in molecular environments, J. Chem. Phys. **147**, 124101 (2017) (8 pages)

337. G. T. Craven and A. Nitzan , Electrothermal transistor effect and cyclic electronic currents in multithermal charge transfer networks
Phys. Rev. Lett. **118**, 207201(2017) (6 pages)

336. G. Craven and A. Nitzan
Electron transfer at thermally heterogeneous molecule-metal interfaces
J. Chem. Phys. **146**, 092305 (2017) (10 pages)

335. M A. Ochoa, Anton Bruch and Abraham Nitzan
Energy distribution and local fluctuations in strongly coupled open quantum systems: The extended resonant level model
Phys. Rev. B **94**, 035420 (2016) (7 pages)

334. G. T. Craven and A. Nitzan
Electron transfer across a thermal gradient
PNAS, **113**, 9421–9429 (2016)

333. Y. Gao, M. Galperin, and A. Nitzan
On the widths of Stokes lines in Raman scattering
J. Chem. Phys. 144, 244114 (2016) (8 pages)

332. C. Jia, A. Migliore, N. Xin, S. Huang, J. Wang, Q. Yang, S. Wang, H. Chen, D. Wang, B. Feng, Z. Liu, G. Zhang, D. Qu, Z. Liu, H. Tian, M. A. Ratner, H. Xu, A. Nitzan*, and X Guo* (*Corresponding Authors)
Covalently bonded single-molecule junctions with stable and reversible photoswitched conductivity
Science, **352**, 1443-45 (2016)

331. M. Einax and A. Nitzan
Maximum efficiency of state-space models of molecular scale engines
J. Chem. Phys. **145**, 014108 (2016)

330. A. Bruch, M. Thomas, S. V. Kusminsky, F. von Oppen and A. Nitzan
Quantum thermodynamics of the driven resonant level model
Phys. Rev. B, **93**, 115318 (2016) (14 pages)

329. M. Sukharev and A. Nitzan
Plasmon transmission through excitonic subwavelength gaps
J. Chem. Phys. **144**, 144703 (2016) (8 pages)

328. W. Dou, A. Nitzan J. Subotnik
Molecular Electronic States Near Metal Surfaces at Equilibrium Using Potential of Mean Force and Numerical Renormalization Group Methods: Hysteresis Revisited.
J. Chem. Phys., **144**, 074109 (2016) (12 pages)

327. S. Dey, M. Banik, E. Hulkko, K. Rodriguez, V. A. Apkarian, M. Galperin and A. Nitzan
Observation and analysis of Fano-like lineshapes in the Raman spectra of molecules adsorbed at metal interfaces

Phys. Rev. B **93**, 035411 (2016) (6 pages)

326. M. Galperin and A. Nitzan
Nuclear Dynamics at Molecule-Metal Interfaces: A pseudoparticle perspective
J. Phys. Chem. Lett. **6**, 4896-4903 (2015)

325. W. Dou, A. Nitzan and J. E. Subotnik
Frictional effects near a metal surface
J. Chem. Phys. **143**, 054103 (2015) (9 pages)

324. W. Dou, A. Nitzan and J. E. Subotnik
Surface hopping with a manifold of electronic states, III: transients, broadening and the Marcus picture
J. Chem. Phys. **142**, 234106 (2015) (8 pages)

323. K. Kaasbjerg and A. Nitzan
Theory of light emission from quantum noise in plasmonic contacts: above-threshold emission from higher-order electron-plasmon scattering
Phys. Rev. Letters, **114**, 126803 (2015) (6 pages)

322. W. Dou, A. Nitzan and J. E. Subotnik
Surface hopping with a manifold of electronic states. II. Application to the many-body Anderson-Holstein model
J. Chem. Phys. **142**, 084110 (2015) (11 pages)

321. A. Migliore and A. Nitzan
Irreversibility in redox molecular conduction: single versus double metal-molecule interfaces
Electrochimica Acta **160**, 363–375 (2015)

320. A. Novelli, W. Belzig and A. Nitzan
Landau-Zener evolution under weak measurement: Manifestation of the Zeno effect under diabatic and adiabatic measurement protocols
New J. Phys., **17**, 01300 (2015) (12 pages)

319. M. Einax and A. Nitzan
Network analysis of photovoltaic energy conversion
J. Phys. Chem. C, **118**, 27226-27234 (2014)

318. K. B. Whaley, A. A. Kocherzhenko and A. Nitzan
Coherent and Diffusive Timescales for Exciton Dissociation in Bulk Heterojunction Photovoltaic Cells
J. Phys. Chem. C, **118**, 27235−27244 (2014)

317. M. Einax, M. Dierl, Philip R. Schiff and A. Nitzan
Multiple state representation scheme for organic bulk heterojunction solar cells: A novel analysis perspective
European Phys. Let., **104**, 40002 (2013) (6 pages; Editor Choice, 2013)

316. M. Sukharev, N. Freifeld and A. Nitzan

Numerical calculations of radiative and non-radiative relaxation of molecules near metal particles
J. Phys. Chem. C, **118**, 1054 (2014)

315. J. Gersten, K. Kaasbjerg and A. Nitzan
Induced spin filtering in electron transmission through chiral molecular layers adsorbed on metals with strong spin-orbit coupling
J. Chem. Phys. **139**, 114111 (2013) (*20 pages*)

314. K. Kaasbjerg, T. Novotny and A. Nitzan
Carrier-induced renormalization of vibrational frequencies in nanoscale junctions: Signatures of vibrational damping and heating
Phys. Rev. B (Rapid Communication), **88**, 201405(R) (2013) (Editor Choice)

313. A. Migliore and A. Nitzan
Irreversibility and hysteresis in redox molecular conduction junctions
J.Am.Chem.Soc, **135**, 9420-32 (2013)

312. A. White, A. Migliore, M. Galperin and A. Nitzan
Quantum Transport With Two Interacting Conduction Channels
J. Chem. Phys. **138**, 174111 (2013) (*6 pages*)

311. M. Kornbluth, T. Seideman and A. Nitzan
Light-induced electronic non-equilibrium in plasmonic particles
J. Chem. Phys. **138**, 174707 (2013) (*9 pages*)

310. S. K. Maiti and A. Nitzan
Mobility edge phenomenon in a Hubbard chain: A mean field study
Physics Letters A, 377, 1205-1209 (2013)

309. M. Galperin† and Abraham Nitzan
Cooperative effects in inelastic tunneling
J. Phys.Chem. B, **317**, 4449-4453 (2013)

308. G. Li, B. Movaghar, A. Nitzan and M. A. Ratner
Polaron formation: Ehrenfest dynamics vs. exact results
J. Chem. Phys. **138**, 044112 (2013)

307. G. Li, A. Nitzan and M. A. Ratner
Yield of exciton dissociation in a donor–acceptor photovoltaic junction
Phys. Chem. Chem. Phys. **14**, 14270 (2012)

306. A. Migliore, P. Schiff and A. Nitzan
On the relationship between molecular state and single electron pictures in simple electrochemical junctions
Phys. Chem. Chem. Phys., **14**, 13746 - 13753 (2012)

305. M. Galperin and A. Nitzan
Molecular optoelectronics: The interaction of molecular conduction junctions with light
Phys. Chem. Chem. Phys., **14,** 9421 - 9438 (2012)

304. A. Migliore and A. Nitzan
On the evaluation of the Marcus-Hush-Chidsey integral
J. Electroanal. Chem. 671, 99-101 (2012)

303. M. Oren, M. Galperin and A. Nitzan
Raman scattering from molecular conduction junctions: the charge transfer mechanism
Phys. Rev. B, **85**, 115435 (2012) (12 pages)

302. G. Li, M. S. Shishodia, B. D. Fainberg, B. Apter, M. Oren, A. Nitzan, M. A. Ratner
Compensation of Coulomb blocking and energy transfer in the current voltage characteristic of molecular conduction junctions
Nano Lettters, **12**, 2228-32 (2012)

301. D. Rai, O. Hod and A. Nitzan
Magnetic Fields Effects on the Electronic Conduction Properties of Molecular Ring Structures
Phys. Rev. B, **85**, 155440 (2012) (*21 pages*)

300. M. Galperin and A. Nitzan
Raman scattering from biased molecular conduction junctions: The electronic background and its temperature
Phys. Rev. B **84**, 195325 (2011) (*10 pages*)

299. M. Sukharev and A. Nitzan
Optics of atomic clusters in two dimensions: rigorous numerical studies
Phys. Rev. A **84**, 043802 (2011) (10 pages)

298. M. Einax, M. Dierl and A. Nitzan
Heterojunction organic photovoltaic cells as molecular heat engines: A simple model for the performance analysis
J. Phys. Chem. C, **115**, 21396–21401 (2011)

297. D. Rai, O. Hod and A. Nitzan
Magnetic Field Control of the Current through Molecular Ring Junctions
J. Phys. Chem. Lett. **2**, 2118–2124 (2011)

296. A. Migliore and A. Nitzan
Nonlinear charge transport in redox molecular junctions: a Marcus perspective
ACS Nano, **5**, 6669-6685 (2011)

295. A. Bednorz W. Belzig and A. Nitzan
Nonclassical time correlation functions in quantum continuous measurement
New J. Phys., **14,** 013009(2012)

294. M. Galperin and A. Nitzan
Raman scattering and electronic heating in molecular conduction junctions
J. Phys. Chem. Lett. 2, 2110–2113 (2011)

293. Circular Currents in Molecular Wires

D. Rai, O. Hod and A. Nitzan
J. Phys. Chem C, **114**, 20583-20594 (2010)

292. M. Einax, G. Solomon, W. Dieterich and A. Nitzan
Unidirectional hopping transport of interacting particles on a finite chain
J. Chem. Phys. **133**, 054102 (2010) [12 pages]

291. P.Schiff and A. Nitzan
Kramers barrier crossing as a cooling machine
Chemical Physics, **375**, 399-402 (2010)

290. V. Ben-Moshe, D. Rai, S. S. Skourtis and A. Nitzan
Steady state current transfer and scattering theory
J. Chem. Phys, **133**, 054105 (2010) [9 pages]

289. V. Ben Moshe, A. Nitzan, S. S. Skourtis and D. Beratan
Steady-state theory of current transfer
J. Phys. Chem. C, **114,** 8005–8013 (2010)

288. G. Li, B. D. Fainberg, A. Nitzan, S. Kohler and Peter Hänggi
Coherent charge transport through molecular wires: Exciton blocking and current from electronic excitations in the wire
Phys. Rev. B **81**, 165310(2010) [14 pages]

287. M. Einax, M. Körner, P Maass and A. Nitzan
Nonlinear hopping transport in ring systems and open channels
Phys. Chem. Chem. Phys. **12**, 645-654 (2010)

286. H. Nakanishi, K. J. M. Bishop, B. Kowalczyk, A. Nitzan, E. A. Weiss, K. V. Tretiakov, M. M. Apodaca, R. Klajn, J. F. Stoddart and B. A. Grzybowski
Photoconductance and inverse photoconductance in films of functionalized metal nanoparticles
Nature, **460**, 371-375 (2009)

285. J. E. Subotnik, T. Hansen, M. A. Ratner and A. Nitzan
Nonequilibrium steady state transport via the reduced density matrix operator
J. Chem. Phys. **130**, 144105 (2009) [12 pages]

284. M. Galperin, K. Saito, Al. V. Balatsky and A. Nitzan
Cooling mechanisms in molecular conduction junctions
Phys. Rev. B 80, 115427 (2009) [12 pages]

283. A. Landau, L. Kronik and A. Nitzan
Cooperative effects in molecular conduction II: The Semiconductor−Metal Molecular Junction
J. Phys. Chem. A, **113**, 7452-7460 (2009).

282. S. Yeganeh, M. Ratner M. Galperin and A. Nitzan
Transport in State Space: Voltage-Dependent Conductance Calculations of Benzene-1,4-dithiol

Nano Letters, **9**, 1970-74 (2009)

281□□□. Galperin, M.A. Ratner and A. Nitzan
Raman scattering in current carrying molecular junctions
J. Chem. Phys. **130**, 144109 (2009) [19 pages]

280. M. Galperin, M.A. Ratner and A. Nitzan
Raman scattering from non-equilibrium molecular conduction junctions
Nano Letters, **9**, 758-762 (2009)

279. S. Tornow, R. Bulla, F. B. Anders and A. Nitzan
Dissipative two-electron transfer: A numerical renormalization group study
Phys. Rev. B **78**, 035434 (2008) [14 pages]

278. S. S. Skourtis, D. N. Beratan, R. Naaman, A. Nitzan and D. H. Waldeck
Chiral control of electron transmission through molecules
Phys. Rev. Letters, **101**, 238103 (2008) [4 pages]
[Science Perspective by R. J. Cave: Science, **323**, 1435 (2009)]

277. B. Fainberg and A. Nitzan
Decaying Rabi oscillations in quantum-dot tunnelling junctions
Phys. Stat. Sol. A, **206**, 948-951 (2009)

276. M. Galperin, A. Nitzan and M. A. Ratner
The non-linear response of molecular junctions: the polaron model revisited
J. Phys.: Condens. Matter **20,** 374107 (2008) [6 pages]

275. M. Galperin, A. Nitzan and M. A. Ratner
Inelastic transport in the Coulomb blockade regime within a nonequilibrium atomic limit
Phys. Rev. B, **78**, 125320 (2008) [9 pages]

274. Joseph E. Subotnik, Abraham Nitzan
Multibody Scattering, Correlation, Molecular Conduction and the 0.7 Anomaly
J. Chem. Phys. **129**, 144107 (2008) [14 pages]

273. M. Galperin, M.A. Ratner, A. Nitzan and A. Troisi
Nuclear Coupling and Polarization in Molecular Transport Junctions: Beyond Tunneling to Function
Science, **319**, 1056-1060 (2008)

272.B. Fainberg, M. Jouravlev and A. Nitzan
Theory of light-induced current in molecular-tunneling junctions excited with intense shaped pulses
Phys. Rev. B **76**, 245329 (2007) [12 pages]

271. M. Galperin, M.A. Ratner, A. Nitzan
Inelastic effects in molecular junction transport: Scattering and self-consistent calculations for the Seebeck coefficient
Molecular Physics, **106**, 397-404 (2008)

270. A. Nitzan
Molecules take the heat (Perspective)
Science, **317**, 759-760 (2007)

269. A. Landau, L. Kronik and A. Nitzan
Cooperative effects in molecular conduction
J. Comp. Theor. Nanoscience, **5**, 535-544 (2008)

268. M. Galperin, M.A. Ratner and A. Nitzan
Inelastic effects in molecular junctions in the Coulomb and Kondo regimes: Nonequilibrium equation-of-motion approach.
Phys. Rev. B **76**, 035301 (2007) (11 pages)

267. M. Galperin, M.A. Ratner and A. Nitzan
Molecular Transport Junctions: Vibrational Effects
J. Phys.: Condens. Matter **19,** 103201 (2007) (81 pages)

266. M. Galperin, M.A. Ratner and A. Nitzan
Heat conduction in molecular transport junctions
Phys. Rev. B **75**, 155312 (2007) (14 pages)

265. M. Galperin, A. Nitzan and M.A. Ratner
Inelastic tunneling effects on noise properties of molecular junctions
Phys. Rev. B 74, 075326 (2006) (14 pages)

264. M. Galperin, A. Nitzan, and M. A. Ratner
Resonant inelastic tunneling in molecular junctions
Phys. Rev. B **73**, 045314 (2006) (13 pages)

263. E.A. Weiss, G. Katz, R. H. Goldsmith, M. R. Wasielewski, M. A. Ratner, R. Kosloff and A. Nitzan
Electron transfer mechanism and the locality of the system-bath interaction: A comparison of local, semilocal, and pure dephasing models.
J. Chem. Phys. **124**, 074501 (2006) (10 pages)

262. M. Galperin, M.A. Ratner and A. Nitzan
Conduction in molecular transport junction: Current from coupling to the electron-hole excitations in the leads
Phys. Rev. Lett. 96, 166803 (2006) (4 pages)

261. D. Segal and A. Nitzan
Molecular heat pump
Phys. Rev. E **73**, 026109 (2006) (9 pages)

260. M. Galperin and A. Nitzan
Optical properties of current carrying molecular wires
J. Chem. Phys. **124**, 234709 (2006) (17 pages)

259. J. Koch, M. Semmelhack, F. von Oppen and A. Nitzan
Current-induced nonequilibrium vibrations in single-molecule devices

Phys. Rev. B **73**, 155306 (2006) (6 pages)

258. M. Galperin and A. Nitzan
Current induced light emission and light induced current in molecular tunneling junctions
Phys. Rev Letters, **95**, 206802 (2005). (4 pages)

257. I. Benjamin and A. Nitzan
Path Integral computations of tunneling processes
J. Chem. Phys. **123**, 104103 (2005) (8 pages)

256. D. Segal and A. Nitzan
Heat rectification in molecular junctions
J. Chem. Phys. **122**, 194704 (2005) (12 pages)

255. O.Dürr, W.Dieterich and A. Nitzan
Coupled ion and network dynamics in polymer electrolytes: Monte Carlo study of a lattice model
J. Chem. Phys. **121**, 12732-39 (2004)

254. M. Galperin, M. A. Ratner and A. Nitzan
Hysteresis, switching, and negative differential resistance in molecular junctions: A polaron Model
Nano Letters, **5**, 125-130 (2005)

253. M. Galperin, A. Nitzan, M. A. Ratner and D. R. Stewart
Molecular transport junctions: Asymmetry in inelastic tunneling processes
J. Phys. Chem. B, **109**, 8519-8522 (2005)

252. M. Ratner and A. Nitzan
The chemist's view of Nanotechnology: Molecular Electronics
ננוטכנולוגיה בראי הכימיה: אלקטרוניקה מולקולרית
Bulletin of the Israel Chemical Society, Issue 14, p. 3-13 (Dec 2003)

251. A.W. Ghosh,P.S. Damle,S. Datta,and A. Nitzan
Molecular Electronics: Theory and device prospects
MRS Bulletin, **29**, 391-395 (2004)

250. D. Segal and A. Nitzan
A spin boson thermal rectifier
Phys. Rev Letters. **94**, 034301 (2005) [4 pages]

249. M. Galperin, M. Ratner and A. Nitzan
On the linewidths of vibrational features in inelastic electron tunneling spectroscopy
Nano Letters, **4**, 1605-1611 (2004)

248. M. Galperin, M. Ratner and A. Nitzan
Inelastic electron tunneling spectroscopy in molecular junctions: Peaks and dips
J. Chem. Phys. **121**, 11965-11979 (2004)

247. Y. Calev, H. Cohen, G. Cuniberti, A. Nitzan, and D. Porath
A Tight binding description of the STM image of molecular chains
Israel J. Chem. **44**, 133-143 (2004)

246. S. Skourtis and A. Nitzan
Effects of initial state preparation on the distance dependence of electron transfer through molecular bridges and wires.
J. Chem. Phys., **119**, 6271-6 (2003)

245. S.Zilberman, T.Becker, F.Mugele, B.N.J. Persson and A.Nitzan
Dynamics of squeeze-out:Theory and experiments
J. Chem. Phys., **118**, 11160-67 (2003)

244. P. Graf, M. G. Kurnikova, R. D. Coalson and A. Nitzan
Comparison of Dynamic Lattice Monte-Carlo Simulations and Dielectric Self Energy Poisson-Nernst-Planck continuum theory for model ion-channels
J. Phys. Chem. *B* **108,** 2006-2015 (2004)

243. D. Segal, A. Nitzan and P. Hänggi
Thermal conductance through molecular wires
J. Chem. Phys. **119**, 6840-6855 (2003)

242. M. Galperin and A. Nitzan
NEGF-HF method for molecular junction properties calculations
Annals of the NY Academy of Science, **1006**, 48-67 (2003)

241. A. Troisi, M.A. Ratner and A. Nitzan
A Rate Constant Expression for Charge Transfer through Fluctuating Bridge
J. Chem. Phys. **119**, 5782-5788 (2003)

240. A. Nitzan and Mark Ratner
Electron transport in molecular wire junctions: Models and Mechanisms
Science, **300**, 1384-1389 (2003)

239. A. Troisi, M.A. Ratner and A. Nitzan
Vibronic effects in off-resonance molecular wire conduction
J. Chem. Phys. **118**, 6072-6082 (2003)

238. V. Mujica, A. Nitzan, S. Datta, M. A. Ratner and C. P. Kubiak
Molecular Wire Junctions: Tuning the Conductance
J. Phys. Chem., **107,** 91-95 (2003)

237. A. Nitzan
The relationship between electron transfer rate and molecular conduction. 2. The sequential hopping case
Israel Journal of Chemistry, **42**, 163-166 (2002)

236. S. Pleutin, H. Grabert, G. L. Ingold and A. Nitzan
The electrostatic potential profile along a biased molecular wire: A model quantum mechanical calculation

J. Chem. Phys. **118**, 3756-3763 (2003)

235. M. Galperin, A. Nitzan, S. Sek, M. Majda
Asymmetric Electron Transmission across Asymmetric Alkanethiol Bilayer Junctions
J. Electroanalytical Chem. **550-551**, 337-350 (2003)

234. J. Lehmann, S. Kohler, P. Hänggi and A. Nitzan
Rectification of laser-induced electronic transport through molecules
J. Chem. Phys. **118**, 3283-3293 (2003)

233. A. Nitzan, M. Galperin, G. L. Ingold, H. Grabert
On the electrostatic potential profile in biased molecular wires
J. Chem. Phys., **117**, 10837-41 (2002)

232. A. Mamonov, R. D. Coalson, A. Nitzan, and M. G. Kurnikova
The role of the dielectric barrier in narrow biological channels: a novel composite approach to modeling single channel currents.
Biophys. J., **84**, 3646-3661 (2003)

231. B.N.J. Persson, V.N. Samoilov, S. Zilberman and A. Nitzan
Phenomenology of Squeezing and Sliding of molecularly thin Xe, CH4 and C16H34 lubrication films between smooth and rough curved solid surfaces with long-range elasticity
J. Chem. Phys. **117**, 3897-3914 (2002)

230. J. Lehmann, S. Kohler, P. Hänggi and A. Nitzan
Molecular Wires Acting as Coherent Quantum Ratchets
Phys. Rev. Letters, **88,** 228305 (2002) [4 pages]

229. M. Galperin, A. Nitzan and I. Benjamin
Numerical simulations of electron tunneling currents in water
J. Phys. Chem. A, **106**, 10790-96 (2002)

228. V. Mujica, M. Ratner and A. Nitzan
Molecular rectification: Why is it so rare?
Chem. Phys. 281, 147 –150 (2002)

227. U. Peskin, M. Galperin and A. Nitzan
Traversal times for resonant tunneling
J. Phys. Chem. B, **106**, 8306-8312 (2002)

226. M. Galperin, S. Toledo and A. Nitzan
Numerical computation of tunneling fluxes
J. Chem. Phys. **117**, 10817-26 (2002)

225. D. Segal and A. Nitzan
Heating in current carrying molecular junctions
J. Chem. Phys. **117**, 3915-3927 (2002)

224. D. Segal and A. Nitzan

Conduction in molecular junctions: Inelastic effects
Chem. Phys. **281**, 235 –256 (2002)

223. O. Duerr, T. Volz, W. Dieterich and A. Nitzan
Dynamic percolation theory for particle diffusion in a polymer network
J. Chem. Phys. **117**, 441-447 (2002)

222. O. Duerr, W. Dieterich P. Maas and A. Nitzan
Effective medium theory of conduction in stretched polymer electrolytes
J. Phys. Chem. B, **106**, 6149-6155 (2002)

221. F. Mugele, B.N.J. Persson, S. Zilberman, A. Nitzan and M. Salmeron,
Frictional Properties of Chain Alcohols and the Dynamics of Layering Transitions
Tribology Letters, **12**, 123-129, 2002

220. S. Zilberman, B.N.J. Persson, A. Nitzan
Theory and Simulations of Squeeze-out Dynamics in Boundary Lubrication
J. Chem. Phys., 115, 11268-11277 (2001)

219. O. Duerr, W. Dieterich and A. Nitzan
Diffusion in polymer electrolytes and the dynamic percolation model
Solid State Ionics, 149, 125-130 (2002)

218. M. Galperin and A. Nitzan
Inelastic effects in electron tunneling through water layers
J. Chem. Phys. **115**, 2681-2694 (2001)

217. D. G. Wu, D Cahen, P. Graf, R. Naaman, A. Nitzan, D. Shvarts
Direct Detection of Low Concentration NO in Physiological Solutions by a New GaAs-Based Sensor
Chem. Eur. J. 7, 1743-1749(2001)

216. S. Zilberman, B. Persson and A. Nitzan, F. Mugele and M. Salmeron
Boundary Lubrication: Dynamics of Squeeze-Out
Phys. Rev. E **63**, 055103.1-4 (2001)

215. A. Nitzan
A relationship between electron transfer rates and molecular conduction.
J. Phys. Chem. A **105**, 2677-2679(2001)

214. D. Segal and A. Nitzan
Steady state quantum mechanics of thermally relaxing systems
Chemical Physics, **268**, 315-335 (2001)

213. A. Nitzan
Electron transmission through molecules and molecular interfaces
Annu. Rev. Phys. Chem. **52**, 681– 750 (2001)

212. M. Galperin, A. Nitzan and U. Peskin
Traversal time for electron tunneling in water

J. Chem. Phys. **114**, 9205-08 (2001)

211. P. Graf and A. Nitzan, M. G. Kurnikova and R. D. Coalson
A dynamic lattice Monte Carlo model of ion transport in inhomogeneous dielectric environments: Method and implementation
J. Phys. Chem. B, 104, 12324-12338 (2000)

210. A. A. Kornyshev and A. Nitzan
Effect of overscreening on the localization of hydrated electrons
Z. Phys. Chem. **215**, 701-715 (2001)

209. A. Nitzan and J. Jortner, J. Wilkie, A. L. Burin and M. A. Ratner
Tunneling Time for Electron Transfer Reactions
J. Phys. Chem. B, **104**, 5661-5665 (2000)

208. D. Segal, A. Nitzan, W. B. Davis and M.A. Ratner
Activated conduction in microscopic molecular junctions
J. Phys. Chem. B., **104**, 2790-2793 (2000)

207. D. Segal, A. Nitzan, W. B. Davis, M.R. Wasielewski and M.A. Ratner
Electron transfer rates in bridged molecular systems 2. A steady state analysis of coherent tunneling and thermal transitions
J. Phys. Chem. B, **104**, 3817-3829 (2000)

206. U. Peskin, A. Edlund, I. Bar-On, M. Galperin and A. Nitzan
Transient Resonance Structures in Electron Tunneling Through Water
J. Chem. Phys. **111**, 7558-66 (1999)

205. A. Nitzan and I. Benjamin
Electron transmission through molecular layers: Numerical simulations and theoretical considerations
Accounts of Chemical Research, **32**, 854-861 (1999).

204. A. Nitzan
Ultrafast relaxation in water [*News and views commentary*]
Nature, **402**, 472-475 (1999)

203. M. Galperin, D. Segal and A. Nitzan
Perturbation theory approach to tunneling: Direct and resonance transmission in super-exchange models
J. Chem. Phys., **111**, 1569-1579 (1999)

202**.** W. Dieterich, O. Durr, P. Pendzig, A. Bunde and A. Nitzan
Percolation concepts in Solid State Ionics
Physica A, **266**, 229-237(1999)

201. Maria G. Kurnikova, Rob D. Coalson, Peter Graf and Abraham Nitzan
A Lattice Relaxation Algorithm for 3D Poisson-Nernst-Planck Theory with Application to Ion Transport Through the Gramicidin A Channel
Biophys. Journal, 76, 642-656(1999).

200. P. Pendzig, W. Dieterich and A. Nitzan
Monte-Carlo study of diffusion in polymer electrolytes
J. Non-Crystalline solids, 235, 748-752(1998)

199. O. Dürr, P. Pendzig, W. Dieterich and A. Nitzan
Model studies of diffusion in glassy and polymer ionic conductors
Solid State Ionics, 'Science and technology', p. 33-41(1998)

198. R. Naaman, R. Haran, A. Nitzan, D. Evans and M. Galperin
Electron transmission through molecular layers
J. Phys. Chem. B **102**, 3658-3668(1998)

197. P. Graf and Abraham Nitzan
Numerical simulations of solvation in simple polar fluids: Dependence on the thermodynamic state below and above the critical point
Chemical Physics, **235**, 297-312(1998)

196. D.G. Evans, A. Nitzan and M.A. Ratner
Photo-induced electron transfer in mixed-valence compounds: Beyond the golden rule regime
J. Chem. Phys. **108**, 6387-6393(1998)

195. D. Rostkier-Edelstein, P. Graf and A. Nitzan
Computing vibrational energy relaxation for high frequency modes in condensed phases.
J. Chem. Phys. **107**, 10470-79 (1997)

194. W. B. Davis, M.R. Wasielewski, M.A. Ratner, V. Mujica and A. Nitzan
Electron transfer rates in bridged molecular systems: A phenomenological approach to relaxation
J. Phys. Chem. **A101**, 6158-6164(1997)

193. I. Benjamin, D. Evans and A. Nitzan
Asymmetric tunneling through ordered molecular layers
J. Chem. Phys. **106**, 1291-1293(1997)

192. A. Haran, K. Kadyshevitch, H. Cohenn, R. Naaman, D. Evans, T. Seidman and A. Nitzan
Electron transmission through band structure in organized organic thin films
Chem. Phys. Letters, **268**, 475-480(1997)

191. I. Benjamin, D. Evans and A. Nitzan
Electron tunneling through water layers: Effect of layer structure and thickness
J. Chem. Phys. **106**, 6647-54(1997)

190. P. Pendzig, W. Dieterich and A. Nitzan
Constant pressure simulations of lattice gas models
J. Chem. Phys. **106**, 3703-9(1997)

189. A. Mosyak, P. Graf, I. Benjamin and A. Nitzan

Electron tunneling through water layers: Effect of polarizability
J. Phys. Chem. A, **101**, 429-433(1997)

188. B.N.J. Persson and A. Nitzan
Linear sliding friction: on the origin of the microscopic friction for Xe on silver
Surf. Sci., **367**, 261-275(1996)

187. P. Graf and A. Nitzan and G. H. F. Diercksen
Phenomenology of electron solvation in polar fluids
J. Phys. Chem., **100**, 18916-18923(1996).

186. A. Mosyak, A. Nitzan and R. Kosloff
Numerical simulations of electron tunneling in water.
J. Chem. Phys. **104**, 1549-1560(1996).

185. R. Olender, A. Nitzan, D. Knödler and W. Dieterich
Lattice theory of solvation dynamics in macromolecular fluids: III. Monte-Carlo simulations.
J. Chem. Phys. **103**, 6275-6282(1995)

184. M.C. Longergan, A. Nitzan, M. Ratner and D.F. Shriver
Dynamically disordered hopping, glass transition and polymer electrolytes
J. Chem. Phys. **103**, 3253-3261(1995)

183. G.V. Vijayadamodar and A. Nitzan
On the application of instantaneous normal modes analysis to long time dynamics of liquids
J. Chem. Phys. **103**, 2169-2177(1995)

182. O. Cheshnovsky, R. Giniger, G. Markovich, G. Makov, A. Nitzan and J. Jortner
Surface and Internal Anion Solvation in water clusters.
J. de Chimie. Physique, **92**, 397-408(1995)

181. R. Olender and Abraham Nitzan,
Solvation dynamics in dielectric solvents with restricted rotations: Polyethers
J. Chem. Phys., **102**, 7180-7196(1995).

180. M.C. Longergan, A. Nitzan and M. Ratner
Ionic diffusion in dynamically-disordered materials: Motion on a renewing percolative lattice.
J. Mol. Liquids, **60**, 269-288 (1994).

179. A. D. Hammerich, A. Nitzan and M. A. ratner
Fourier analysis, correlation functions and non-adiabatic electron transfer: wave-packets and exact representations,
Theoretica Chimica Acta, **89**, 383-399 (1994).

178. D. Knödler, W. Dieterich, C. Lonsky and A. Nitzan
Nonlinear relaxation and solvation dynamics in a Coulomb lattice gas
J. Chem. Phys. **102**, 465-470(1995)

177. M. D. Todd, A. Nitzan, M.A. Ratner and J. T. Hupp
Electron transfer rates from time dependent correlation functions: Wavepacket dynamics, solvent effects and applications.
J. of Photochemistry and Photobiology, **82**, 87-101(1994)

176. R.D. Coalson, D.G. Evans and A. Nitzan
A nonequilibrium golden rule formula for electronic state populations in non-adiabatically coupled systems.
J. Chem. Phys. **101**, 436-448(1994)

175. A. Nitzan and Z. Schuss
Multidimensional barrier crossing
in: The Barrier Crossing Problem, edited by G.R. Fleming and P. Hänggi (World Scientific, 1994)

174. D. Rostkier, M. Urbakh and A. Nitzan
Electron tunneling through a dielectric barrier
J. Chem. Phys. **101**, 8224-8237 (1994)

173 A. Nitzan and M. Ratner
Conduction in Polymers: Dynamic disorder transport
J. Phys. Chem. **98**, 1765-1775 (1994)

172. R. Olender and A. Nitzan
Lattice theory of solvation and dissociation in macromolecular fluids: II. Quasi chemical approximation.
J. Chem. Phys. **101**, 2338-2349 (1994).

171. G. Makov and A. Nitzan
Solvation and ionization near a dielectric surface
J. Phys. Chem. **98**, 3459-3466 (1994).

170. A. Mosyak and A. Nitzan
Electron solvation: Quantum and classical aspects.
in: *Reaction Dynamics in Clusters and Condensed Phases*, edited by B. Pullman, J. Jortner and R.D. Levine (Kluwer, Amsterdam,1994), p.557..

169. E. Neria and A. Nitzan
Numerical simulations of solvation dynamics in electrolyte solutions
J. Chem. Phys. **100**, 3855-3868 (1994).

168. E. Neria and A. Nitzan
Numerical evaluation of golden rule rates for condensed phase processes.
Chemical Physics, **183**, 351-363 (1994).

167. R. Olender and A. Nitzan
Lattice theory of solvation and dissociation in macromolecular fluids: I. Mean field approximation.
J.Chem.Phys. **100**, 705-718 (1994).

166. M.C. Longergan, A. Nitzan and M. Ratner
Ionic diffusion in dynamically-disordered materials: Motion on a renewing percolative lattice.
J. Mol. Liquids, **60**, 269-288 (1994).

165. E. Neria and A. Nitzan
Solvation dynamics in polar solvents and in electrolyte solutions
Ultrafast Phenomena in Condensed Molecular Systems, edited by Y. Guaduel and P. Rossky, American Physical Society (1993).

164. G. Makov and A. Nitzan
Electronic properties of finite metal systems
Phys. Rev. **B47**, 2301-2307 (1993).

163. E. Neria and A. Nitzan
Semiclassical evaluation of non-adiabatic rates in condensed phases
J. Chem. Phys. **99**, 1109-1123(1993).

162. M.D. Todd, A. Nitzan and M.A. Ratner
Electron transfer via superexchange: A time dependent approach
J.Phys.Chem., **97**,29-33,(1993).

161 R. Granek and A. Nitzan
Comment on: Self-consistent theory of polymer dynamics in melts
J.Chem.Phys. **97**,3873-3874(1992).

160. R.Olender and A.Nitzan
Ion solvation and association in complex systems: Theoretical considerations.
Electrochimica Acta **37**,1505-1509(1992)

159. N.Liver and A.Nitzan
On the redox properties of small semiconductor particles
J.Phys.Chem. **96**,3366-3373(1992).

158. G.Makov and A.Nitzan
Association of ion pairs in dielectric clusters.
J. Phys. Chem. **96**,2965-2967(1992).

157. E. Neria and A. Nitzan
Simulations of solvation dynamics in simple polar solvents.
J. Chem. Phys. **96**,5433-5440(1992).

156. G. Makov and A.Nitzan
On the non classical asymptotic behavior of electronic properties in metal clusters.
J. Chem. Phys. **95**,9024-9027(1991).

155. E.Neria, A.Nitzan, R.N.Barnett and U.Landman
Quantum dynamical simulations of non-adiabatic processes: Solvation dynamics of the hydrated electron.

Phys. Rev. Letters **67**,1011-1014(1991).

154. R.Granek, A.Nitzan and M.A.Ratner
Mechanical Properties of dynamically disordered networks.
J. non Crytalline Solids, **131-133**, 1018-1021 (1991)

153. J.Gersten and A.Nitzan
Radiative properties of solvated molecules in dielectric clusters and small particles.
J.Chem.Phys., **95**, 686-699(1991).

152. M.A.Ratner and A.Nitzan
Polymer electrolytes: Hopping, domain structures and frequency - dependent conductivity.
Mat.Res.Soc.Symp.Proc., **Vol 210**,109-117, 1991.

151. Z.Kotler, E.Neria and A.Nitzan
Multiconfiguration time dependent self consistent field approximations in
quantum dynamical simulations.
Computer Phys. Comm. **63**, 243-258 (1991).

150. B.Carmeli, V.Mujica and A.Nitzan
Dynamics of multidimensional barrier crossing in the overdamped limit.
Berichte der Bunsenges. Phys. Chem., **95**, 319-326(1991).

149. G.Rajagopal, R.N.Barnett, U.Landman and A.Nitzan
Born Oppenheim dynamics using density-functional theory: Equilibrium and
fragmentation of small sodium clusters.
J.Chem.Phys., **94**,608-616(1991).

148. R.N.Barnett, U.Landman and A.Nitzan
Excess electron transport in water.
J.Chem.Phys. **93**,8187-8195(1990).

147. M.Silverberg, M.A.Ratner, R.Granek and A.Nitzan
Tracer diffusion of interacting particles on incomplete lattices: Effective medium
approximation.
J.Chem.Phys. **93**,3420-3426(1990).

146. R.N.Barnett, U.Landman and A.Nitzan
Primary events following electron injection into water and adsorbed water layers.
J.Chem.Phys. **93**,6535-6542(1990).

145. R.Granek and A.Nitzan
Dynamic bond percolation theory for diffusion of interacting particles:
Tracer diffusion in a binary mixture lattice gas.
J.Chem.Phys. **93**,5918-5934(1990)

144. R.N.Barnett, U.Landman, G.Makov and A.Nitzan
Theoretical studies of the spectroscopy of excess electrons in water clusters.
J.Chem.Phys. **93**,6226-6238(1990).

143. Optical spectra of localized excess electrons in alkali halide clusters.
G.Rajagopal, R.N.Barnett, A.Nitzan and U.Landman
Phys. Rev.Letters **64**,2933-2936(1990).

142. A.Penner, A.Amirav, J.Jortner and A.Nitzan
Solvation effects on molecular pure radiative lifetime and absorption oscillator strength in clusters.
J.Chem.Phys. **93**,147-158(1990).

141. S.D.Druger, M.A.Ratner, A.Nitzan and D.W.Skinner
Frequency-dependent diffusion in a spherical cavity: The effects of domain structure on ionic conduction in polymer electrolytes.
J.Chem.Phys. **92**,4491-4500(1990).

140. R.N.Barnett, U.Landman, G.Rajagopal and A.Nitzan
Dynamics, spectra and relaxation phenomena of excess electrons in clusters.
Israel J.Chem., **30**,85-105(1990).

139. R.Granek and A.Nitzan
Dynamic percolation theory for diffusion of interacting particles.
J.Chem.Phys. **92**,1329-1338(1990).

138. S.D.Druger, M.A.Ratner and A.Nitzan
Charge carrier mobility in polymer material: Mechanisms in polymer electrolytes and relationships to electronic conductors.
Molec. Cryst. and Liq. Cryst.

137. N. Barnett, U. Landman, S. Dahr, N.R. Kestner, J. Jortner and A. Nitzan
Quantum simulations and ab initio electronic structure studies of $(H_2O)_2$.
J. Chem.phys. 91, 7797,797-7808

136. M.A.Ratner S.D.Druger and A.Nitzan
Polymeric electrolytes and polyelectrolytes: Salt concentration and domain effects on conductivity.
Mat.Res Soc.Symp.Proc. 135,13-25(1989)

135. M.A. Ratner and A. Nitzan
Conductivity in Polymer Ionics: Dynamic Disorder and Correlations
Faraday Discuss. Chem.Soc. 88,19-42(1989).

134. R.N. Barnett, U. Landman and A. Nitzan
Dynamics of excess electron migration, solvation and spectra in polar molecular clusters.
J. Chem. Phys. 91,5567-5580(1989).

133. U. Landman W.D. Luedtke and A. Nitzan
Dynamics on Tip-substrate Interactions in Atomic Force Microscopy
Surf. Sci. Letters 210 L177-L184 (1989).

132. K. Doan, S.D. Druger, D.F. Shriver, M.A. Ratner and A. Nitzan

Coulomb trapping effects in polymer solid electrolytes: A simulation study of stochiometry dependence.
Molec. Crystals and Liquid Crystals, 160, 311(1988).

131. R.N. Barnett, U. Landman and A. Nitzan
Relaxation dynamics following transitions of solvated electrons.
J. Chem. Phys. 90, 4413-4422 (1989).

130a. M.M. Kosek-Dygas, B.M. Hoffman, B.J. Matkowsky, A. Nitzan, M. Ratner and Z.Schuss
Reply to comment on diffusion theory of multidimensional activated rate processes. Chem. Phys. 95, 1425-1426 (1991).

130. M.M. Kosek-Dygas, B.M. Hoffman, B.J. Matkowsky, A. Nitzan, M. Ratner and Z.Schuss
Diffusion theory of multidimensional activated rate processes: The role of anisotropy. J. Chem. Phys. 90, 1141-1148 (1989).

129. R. Granek and A. Nitzan
Correlated Dynamic Percolation: Many Bond Effective medium theory.
J. Chem. Phys. 90 3784-3794 (1989).

128. B.J. Matkowsky, A. Nitzan and Z. Schuss
Reply to "Comment on the role of reaction path curvature in diffusional curve crossing processes".
J. Chem. Phys. 90 1292-1293 (1989).

127. R.N. Barnett, U. Landman and A. Nitzan
Dynamics of electron localization solvation and migration in polar molecular clusters.
Phys. Rev. Letters 62, 106-109 (1989).

126. R. Granek, A. Nitzan and E. Weitz
Energy transfer in solutions: from diffusive collisions to direct collisions.
J. Phys. Chem. 89 5589-5597 (1988).

125. Z. Kotler, A. Nitzan and R. Kosloff
Multiconfiguration time dependent self consistent field approximation for curve crossing in presence of a bath: A fast fourier transform study.
Chem. Phys. Letters 153 483-489 (1988).

124. G. Kurizki and A. Nitzan
Theory of stimulated emission processes in spherical microparticles.
Phys. Rev. A, 38 267-270 (1988).

123. R. Granek, A. Nitzan, S.D. Druger and M.A. Ratner
Dynamics of ionic motion in polymeric ionic conductors.
Solid State Ionics 28-30 120-128 (1988).

122. M.A. Ratner and A. Nitzan
Fast ion conduction: some theoretical issues.

Solid State Ionics 28-30 3-33 (1988).

121. R.N. Barnett, U. Landman and A. Nitzan
Dynamics and spectra of a solvated electron in water clusters.
J. Chem. Phys. 89, 2242-2256 (1988).

120. R.N. Barnett, U. Landman and A. Nitzan
Dynamics and excitations of solvated electron in molecular clusters.
Phys. Rev. A. 38 2178-2181 (1988).

119. B.J. Matkowsky A. Nitzan and Z. Schuss
Does reaction path curvature play a role in the diffusion theory of multidimensional activated rate processes?
J. Chem. Phys. 88 , 4765-4771 (1988).

118. Z. Kotler and A. Nitzan
Traversal time for tunneling: local aspects.
J. Chem. Phys. 88 , 3871-3878 (1988).

117. N. Liver A. Nitzan A. Amirav and J. Jortner
Effect of small cluster environment on molecular oscillator strength and spectra.
J. Chem. Phys. 88 , 3516-3523 (1988).

116. Guy Makov, A. Nitzan and L.E. Brus
On the ionization potential of small metal and dielectric particles.
J.Chem.Phys. 88 , 5076-5085 (1988).

115. A. Nitzan S.D. Druger and M.A. Ratner
Random walk in dynamically disordered systems.
Philosophical Magazine B56 , 853-9 (1987).

114. A. Nitzan
Activated rate processes in condensed phases, the Kramers theory revisited
Adv. Chem. Phys. 70 489-555 (1988).

113. J.I. Gersten and A. Nitzan
Path integral approach to electromagnetic phenomena in inhomogeneous systems.
J. Opt. Soc. Am. 4 293-298 (1987).

112. J.I. Gersten and A. Nitzan
Path integral approach to electrostatic problems
J. Chem. Phys. 86 3557-3564 (1987).

111. A. Nitzan
Non-Markovian theory of activated rate processes VI. Unimolecular reactions in condensed phases.
J. Chem. Phys. 86 2734-2749 (1987).

110. S.D. Druger, A. Nitzan and M.A. Ratner

Applications of dynamic bond percolation theory to the dielectric response of solid electrolytes.
Sol. State Ionics 18/19 , 106-111 (1986).

109. Y. Boughaleb, A. Nitzan and M.A. Ratner
Correlation effects on ionic motion in framework solid electrolytes.
Sol. State Ionics 18/19, 160-168 (1986).

108. C.S. Harris, A. Nitzan, M.A. Ratner and D.F. Shriver
Particle Motion Through a Dynamiclly Disordered Medium: The Effects of Correlations and Application to Polymer Solid Electrolytes.
Sol. State Ionics 18/19 , 151-155 (1986).

107. R.O. Rosenberg, Y. Boughaleb, A. Nitzan and M.A. Ratner
Effective potentials from Langevin Dynamic Simulations of Framework Solid ionic conductors.
Sol. State Ionics 18/19 , 127-135 (1986).

106. K.B. Whaley, A. Nitzan and R.B. Gerber
Quantum diffusion of hydrogen on metal surfaces.
J. Chem. Phys. 84 , 5181-5195 (1986).

105. B. Helsing, A. Nitzan and H. Metiu
A Fast Fourier transform method for calculating the equilibrium density matrix.
Chem. Phys. Letters 123 , 523-527 (1986).

104. B. Carmeli and A. Nitzan
Non Markovian theory of activated rate processes V. External periodic force in the low-friction limit.
Phys. Rev. A, 32 , 2439-2454 (1985).

103. S.I. Sawada, A. Nitzan and H. Metiu
The mean trajectory approximation for charge and energy transfer processes.
Phys. Rev. B, 32 , 851-867 (1985).

102. A. Nitzan and B.N.J. Persson
Vibrational dephasing by the exchange mechanism: Some new results.
J. Chem. Phys. 83 , 5610-5618 (1985).

101. X.M. Hua, J.I. Gersten and A. Nitzan
Theory of Energy Transfer between molecules near solid state particles.
J. Chem. Phys. 83 , 3650-3659 (1985).

100. Z. Kirson, R.B. Gerber, A. Nitzan and M.A. Ratner
Dynamics of metal electron excitation in molecular dipole-surface collisions.
Surf. Sci. 151, 531-542 (1985).

99. J.I. Gersten and A. Nitzan
Photophysics and photochemistry near surfaces and small particles.
Surf. Sci. 158 , 165-189 (1985).

98. N. Liver, A. Nitzan and K.F. Freed
Radiative and nonradiative decay rates of molecules adsorbed on clusters of metal particles.
J. Chem. Phys. 82 , 3831-3840 (1985).

97. S.D. Druger, M.A. Ratner and A. Nitzan
Generalized hopping model for frequency dependent transport in a dynamically disordered medium, with applications to polymer solid electrolytes.
Phys. Rev. B31 , 3939-3947 (1985).

96. A. Nitzan
Unimolecular reactions in condensed phases: Is the turnover in the viscosity dependence of the rate observable?
J. Chem. Phys. 82 , 1614-1616 (1985).

95a. N. Liver, A. Nitzan and J.I Gersten
Local fields in cavity sites of rough dielectric surfaces
Chem. Phys. Letters, 111, 449-454 (1984).

95. Z. Kirson, R.B. Gerber, A. Nitzan and M.A. Ratner
Dynamics of metal electron excitation in atom-surface collisions: A quantum wave packet approach.
Surf. Science 137 , 527-550 (1984).

94. B. Carmeli and A. Nitzan
Theory of activated rate processes: Coupled modes.
Chem. Phys. Letters 106 , 329-332 (1984).

93. B. Carmeli and A. Nitzan
Theory of activated rate processes: Position dependent friction.
Chem. Phys. Letters 102 , 517-522 (1983).

92. J.I. Gersten and A. Nitzan
Accelerated energy transfer between molecules near a solid surface.
Chem. Phys. Letters 104 , 31-37 (1984).

91. J.I. Gersten and A. Nitzan
Resonance optical response of small dielectric clusters.
Phys. Rev. B29 , 3852-3862 (1984).

90. B. Carmeli and A. Nitzan
Non Markoffian theory of activated rate processes IV. The double well model.
J. Chem. Phys. 80, 3596-3605 (1984).

89. B. Carmeli and A. Nitzan
Non Markoffian theory of activated rate processes III. Bridging between the Kramers limits.
Phys. Rev. A29 , 1481-1495 (1984).

88. S.D. Druger, A. Nitzan and M.A. Ratner
Dynamic bond percolation theory, a microscopic model for diffusion in dynamically disordered systems. I. Definition and one dimensional case.
J. Chem. Phys. 79 , 3133-3142 (1983).

87. S.D. Druger, M.A. Ratner and A. Nitzan
Polymeric solid electrolytes: Dynamic bond percolation and free volume models for diffusion.
Solid State Ionics 9/10 , 1115-1120 (1983).

86. B. Carmeli and A. Nitzan
Theory of activated rate processes: Bridging between the Kramers limits
Phys. Rev. Letters 51 , 233-236 (1983).

85. D.A. Weitz, S. Garoff, J.I. Gersten and A. Nitzan
A comparison of Raman Scattering, resonance Raman scattering and fluorescence from molecules adsorbed on silver island films.
J. Electron Spectroscopy 29 , 363 (1983).
Also in studies in surface science and catalysis, Vol. 14 ,
Vibrations and Surfaces, p. 363, C.R. Bundle and H. Morawitz, Eds.

84. B. Carmeli and A. Nitzan
Non Markoffian theory of activated rate processes I. Formalism.
J. Chem. Phys. 79 , 393-404 (1983).

83. D.A. Weitz, S. Garoff, J.I. Gersten and A. Nitzan
The enhancement of Raman Scattering, resonance Raman Scattering and fluorescence from molecules adsorbed on rough silver surfaces.
J. Chem. Phys. 78 , 5324-5338 (1983).

82. S.H. Jacobson, M.A. Ratner and A. Nitzan
Motion mechanism in framework solid electrolytes: Correlated hopping and diffusion.
J. Chem. Phys. 78 , 4154-4161 (1983).

81. B. Carmeli, R. Tulman, A. Nitzan and M.H. Kalos
Random coupling models IV: Numerical investigation of the dependence on the coupling distribution and on the initial phases.
Chem. Phys. 72 , 363-369 (1982).

80. B. Carmeli and A. Nitzan
Non Markoffian theory of activated rate processes II. Thermal desorption.
Isr. J. Chem. 22 , 360-364 (1982).

79. Z. Kirson, R.G. Gerber and A. Nitzan
Excitation and emission of metal electrons in atom surface collisions.
Surf. Sci. 124 , 279-296 (1983).

78. A. Nitzan and J.C. Tully
Stochastic classical trajectory approach to relaxation phenomena III.

Comparison of trajectory results to quantum mechanical perturbation theory.J. Chem. Phys. 78, 3959-3963 (1983).

77. Z. Kotler and A. Nitzan
Averaged local field intensities in composite films.
Surf. Sci 130 , 124-154 (1983).

76. S.H. Jacobson, M.A. Ratner and A. Nitzan
Correlated ionic motion in solid electrolytes: Tests of Smoluchowski dynamics and conductivity relations.
J. Chem. Phys. 77 , 5752-5766 (1982).

75. D.J. Bergman and A. Nitzan
Averaged field intensities in composite materials
Chem. Phys. Letters 88 , 409-412 (1982).

74. B. Carmeli and A. Nitzan
Non Markoffian theory of activated rate processes
Phys. Rev. Letters 49 , 423-426 (1982).

73. Z. Kotler and A. Nitzan
Dielectric environment effects on surface enhanced resonant electromagnetic phenomena.
J. Phys. Chem. 86 , 2011-2015 (1982).

72. B. Carmeli and A. Nitzan
First passage times and the kinetics of unimolecular dissociation.
J. Chem. Phys. 76 , 5321-5333 (1982).

71. S.H. Jacobson, A. Nitzan and M.A. Ratner
Charge carrier correlations in framework solid electrolytes.
Sol. St. Ionics 5 , 125-128 (1981).

70. P.K. Aravind, A. Nitzan and H. Metiu
The interaction between electromagnetic resonances and its role in spectroscopical studies of molecules adsorbed on colloidal particles on metal spheres.
Surf. Sci. 110 , 189-128 (1981).

69. A. Nitzan and L.E. Brus
Theoretical model for enhanced photochemistry on rough surfaces.
J. Chem. Phys. 75 , 2205-2214 (1981).

68. J. Gersten and A. Nitzan
Spectroscopic properties of molecules interacting with small dielectric particles.
J. Chem. Phys. 75 , 1139-1152 (1981).

67. P. Salamon and A. Nitzan
Finite thermodynamics of a Newton's law Carnot cycle.
J. Chem. Phys. 74 , 3546-3560 (1981).

66. A. Tramer and A. Nitzan

Collisional effects in electronic relaxation.
Advances in Chem. Phys. 47 , 337-380 (1981).

65. A. Nitzan and L.E. Brus
Can photochemistry be enhanced on rough surfaces?
J. Chem. Phys. 74 , 5321-5322 (1981).

64. S.H. Jacobson, A. Nitzan and M.A. Ratner
Stochiometry-dependent conductivity in framework ionic conductors
Phys. Rev. B15 , 1580-1583 (1981).

63. K.F. Freed and A. Nitzan
Intramolecular vibrational energy redistribution and the time evolution of molecular fluorescence.
J. Chem. Phys. 73 , 4765-4778 (1980).

62. A. Nitzan
High energy photochemistry.
J. Chim. Physique 77 , 51-57 (1980).

61. J. Gersten and A. Nitzan
Electromagnetic theory of enhanced Raman scattering by molecules adsorbed on rough surfaces.
J. Chem. Phys. 73 , 3023-3037 (1980).

60. S.H. Jacobson, A. Nitzan and M.A. Ratner
A stochastic Langevin dynamics study of correlated ionic motion in one dimensional solid electrode.
J. Chem. Phys. 72 , 3712-3719 (1980).

59. A. Nitzan, M.A. Ratner and D.F. Shriver
A coupled mode model relating Raman lineshapes to high ionic conductivity
J. Chem. Phys. 72 , 3320-3326 (1980).

58. G. Yahav, Y. Haas, B. Carmeli and A. Nitzan
Incubation times in the multiphoton dissociation of large molecules.
J. Chem. Phys. 72 , 3410-3415 (1980).

57. B. Carmeli and A. Nitzan
Random coupling models for intramolecular dynamics II. Multiphoton excitation of large molecules.
J. Chem. Phys. 72 , 2070-2080 (1980).

56. B. Carmeli and A. Nitzan
Random coupling models for intramolecular dynamics I. Mathematical approach.
J. Chem. Phys. 72, 2054-2069 (1980).

55. B. Carmeli, I. Schek, A. Nitzan and J. Jortner
Numerical simulation for molecular multiphoton excitation models.
J. Chem. Phys. 72 , 1928-1937 (1980).

54. A. Nitzan and P. Ortoleva
Scaling and Ginzburg criteria for critical bifurcations in nonequilibrium systems.
Phys. Rev. A21 , 1735-1755 (1980).

53. P. Salomon, A. Nitzan, B. Andresen and S. Berry
Minimum entropy production and the optimization of heat engines.
Phys. Rev. A21 , 2115-2129 (1980).

52. A. Nitzan and J. Jortner
Theory of inverse electronic relaxations.
J. Chem. Phys. 71 , 3524-3532 (1979).

51. A. Nitzan and J. Jortner
Inverse electronic relaxation.
Chem. Phys. Letters 60 , 1-4 (1979).

50. A. Nitzan
Phenomenology of resonance Raman Scattering and resonance fluorescence from thermally relaxing systems.
Chem. Phys. 41 , 163-181 (1979).

49. B. Carmeli and A. Nitzan
`Kinetic equations for collisionless multiphoton excitation of large molecules.
Chem. Phys. Letters 62 , 457-461 (1979).

48. B. Carmeli and A. Nitzan
On a random coupling model for intramolecular dynamics.
Chem. Phys. Letters 58 , 310-316 (1978).

47. D. Grimbert, M. Lavollee, A. Nitzan and A. Tramer
Mechanism of collision-induced intersystem crossing in CO.
Chem. Phys. Letters 57 , 45-49 (1978).

46. A. Nitzan, M. Shugard and J.C. Tully
Stochastic classical trajectory approach to relaxation phenomena. II.
J. Chem. Phys. 69 , 2525-2535 (1978).

45. M. Shugard, J.C. Tully and A. Nitzan
Stochastic classical trajectory approach to relaxation phenomena. I.
J. Chem. Phys. 69 , 336-345 (1978).

44. A. Nitzan
Chemical instabilities as critical phenomena.
Phys. Rev. 17 , 1513-1528 (1978).

43. Y. Weissman, A. Nitzan and J. Jortner
Quadratic effects in multiphonon transition rates in solids.
Chemical Physics 26 , 413-419 (1977).

42. M. Shugard, J.C. Tully and A. Nitzan
Dynamics of gas solid interactions: Model calculations of energy transfer and sticking.
J. Chem. Phys. 66 , 2534-2544 (1977).

41. V.E. Bondeby and A. Nitzan
Radiationless transitions in small molecules: Interstate cascading in matrix isolated CN.
Phys. Rev. Letters 38 , 889-892 (1977).

40. A. Nitzan, S. Mukamel and A. Ben-Reuven
On the impact and the separation approximation in the theory of multiphoton interactions with thermally perturbed systems.
J. Chem. Phys. 24 , 37-43 (1977).

39. S. Mukamel and A. Nitzan
Resonance Raman scattering from multilevel thermally relaxing system.
J. Chem. Phys. 66 , 2462-2479 (1977).

38. K. Bimpong-Bota, A. Nitzan, P. Ortoleva and J. Ross
Cooperative chemical instability phenomena in arrays of catalytic sites.
J. Chem. Phys. 66 , 3650-3658 (1977).

37. B. Anderson, R.S. Berry, A. Nitzan and P. Salomon
Thermodynamics in finite times: The step-Carnot cycle.
Phys. Rev. A15 , 2086-2093 (1977).

36. A. Nitzan, K.F. Freed and M.H. Cohen
Renormalization group and critical localization.
Phys. Rev. B15, 4476-4489 (1977).

35. M.J. Ondrechen, M.A. Ratner and A. Nitzan
A treatment of vibrational relaxation without the rotating wave approximation.
Chem. Phys. 16, 49-59 (1976).

34. G. Fijimoto, A. Nitzan and E. Weitz
Diffusion of vibrationally excited molecules.
Chem. Phys. 15, 217-225 (1976).

33. J. Stone, A. Nitzan and J. Ross
Superradiance and energy transfer within a system of atoms.
Physica 84A, 1-47 (1976).

32. A. Nitzan, S. Mukamel and J. Jortner
Energy gap law for vibrational relaxation of a molecule in a dense medium.
J. Chem. Phys. 63, 200-207 (1975).

31. H. Metiu, J. Ross and A. Nitzan
On the theory of time resolved near resonance light scattering.
J. Chem. Phys. 63, 1289-1294 (1974).

30. Hong Sup Hahn, A. Nitzan, P. Ortoleva and J. Ross

Threshold excitations, relaxation oscillations and effect of noise on an enzyme reaction.
Proc. Nat. Acad. Sci. 71, 4067-4071 (1974).

29. A. Nitzan, P. Ortoleva and J. Ross
Nucleation in systems with multiple stationary states.
Faraday Symposium of the Chemical Society 9, 241-253 (1974).

28. A. Nitzan and R. Silbey
Relaxation in simple quantum systems.
J. Chem. Phys. 60, 4070-4075 (1974).

27. A. Nitzan, P. Ortoleva, J. Deutch and J. Ross
Fluctuations and transitions in chemically unstable systems: The analogy to phase transitions.
J. Chem. Phys. 61, 1065-1074 (1974).

26. A. Nitzan
On the coupling between vibrational relaxation and molecular electronic transitions.
Mol. Phys. 28, 559-569 (1974).

25. A. Nitzan, S. Mukamel and J. Jortner
Some features of vibrational relaxation of a diatomic molecule in a dense medium.
J. Chem. Phys. 60, 3929-3934 (1974).

24. A. Nitzan and J. Ross
A comment on fluctuations around non-equilibrium steady states.
J. Stat. Phys. 10, 379-390 (1974).

23. A. Nitzan, P. Ortoleva and J. Ross
Symmetry breaking instabilities in illuminated systems.
J. Chem. Phys. 60, 3134-3143 (1974).

22. A. Nitzan
Photon absorption and scattering in Fano antiresonances.
Mol. Phys. 27, 65-80 (1974).

21. A. Nitzan and J. Ross
Oscillations, multiple steady states and instabilities in illuminated systems.
J. Chem. Phys. 58, 241-250 (1973).

20. A. Nitzan and J. Jortner
Non-radiative transition probabilities in the statistical limit.
Theoretical Chimica Acta 30, 217-229 (1973).

19. A. Nitzan, J. Jortner and B. Berne
Interference effects in sequential decay
Mol. Phys. 26, 281-290 (1973).

18. A. Nitzan and J. Jortner
Comments on optical selection studies

J. Chem. Phys. 58, 2669-2670 (1973).

17. A. Nitzan and J. Jortner
Electronic relaxation of small molecules in a dense medium.
Theoretica Chimica Acta 29 , 97-116 (1973).

16. A. Nitzan and J. Jortner
Effects of vibrational relaxation on molecular electronic transitions.
J. Chem. Phys. 58, 2412-2434 (1973).

15. A. Nitzan and J. Jortner
Vibrational relaxation of a molecule in a dense medium.
Mol. Phys. 25, 713-737 (1973).

14. A. Nitzan and J. Jortner
Effects of vibrational relaxation on the optical lineshapes in molecular spectra.
Chem. Phys. Letters 15, 350-356 (1972).

13. A. Nitzan and J. Jortner
Preparation of metastble molecular states by optical excitation.
Chem. Phys. Letters 14, 177-183 (1972).

12. A. Nitzan and J. Jortner
Sequence congestion effects in optical selection studies of electronic relaxation.
Chem. Phys. Letters 13, 466-472 (1972).

11. A. Nitzan and J. Jortner
Radiationless decay and intrastate energy equilibrium in an isolated large molecule.
J. Chem. Phys. 56, 5200-5201 (1972).

10. A. Nitzan and J. Jortner
Resonance Fluorescence from large molecules
J. Chem. Phys. 57, 2870-2889 (1972).

9. A. Nitzan and J. Jortner
Line shape of molecular resonances
Mol. Phys. 24, 109-131 (1972).

8. A. Nitzan and J. Jortner
Intramolecular non radiative transitions in the "non Condon" scheme.
J. Chem. Phys. 56, 3360-3373 (1972).

7. A. Nitzan and J. Jortner
Optical selection studies of radiationless decay in an isolated large molecule II; Role of the frequency changes.
J. Chem. Phys. 56, 2079-2087 (1972).

6. A. Nitzan, J. Jortner and P.M. Rentzepis
Intermediate level structure in highly excited electronic states of large molecules.
Proc. Roy. Soc. (London) A327 , 367-391 (1972).

5. A. Nitzan and J. Jortner
What is the nature of intramolecular coupling responsible for internal conversion in large molecules?
Chem. Phys. Letters 11, 458-463 (1971).

4. A. Nitzan, J. Jortner and P.M. Rentzepis
Internal conversion in large molecules
Mol. Phys. 22, 585-592 (1971).

3. A. Nitzan and J. Jortner
Optical selection studies of radiationless decay in an isolated large molecule.
J. Chem. Phys. 55, 1355-1368 (1971).

2. A. Nitzan, J. Jortner, J. Kommandeur and E. Drent
A quantum mechanical analogue to the Stern-Volmer equation
Chem. Phys. Letters 9, 273-378 (1971).

1. A. Nitzan, J. Jortner and P.M. Rentzepis
Pecularities of the non radiative decay of a single vibronic level in polyatomic molecules.
Chem. Phys. Letters 8, 445-447 (1971).

CHAPTERS IN BOOKS

CB30. A. Nitzan
Beyond molecular conduction: Optical and thermal effects in molecular junctions
Adv. Chem. Phys. **157**, 135-158 (2014)

CB29. M. S. Shishodia, B. D. Fainberg, and A. Nitzan
Theory of energy transfer interactions near sphere and nanoshell based plasmonic nanostructure
in Plasmonics: Metallic Nanostructures and Their Optical Properties IX. Proc. of SPIE, M. I. Stockman, Ed. Bellingham, WA: SPIE, 2011, vol. 8096, p. 80961G

CB28. V. Ben-Moshe, D. N. Beratan, A. Nitzan and S. S. Skourtis
Chiral control of current transfer in molecules
Top Curr Chem. **298**, 259-78 (2011)

CB27. A. Landau, L. Kronik and A. Nitzan
Molecular conduction junctions: Intermolecular effects
in *Perspectives of Mesoscopic Physics*, a Festschrift in honor of Professor Imry's 70th Birthday (World Scientific, Singapore, 2010).

CB26. B.D. Fainberg, P. Hanggi, S. Kohler and A. Nitzan
Exciton- and Light-induced Current in Molecular Nanojunctions
AIP Conference Proceedings **1147**, 78-86 (2009)

ICTOPON-2009 Conference: Transport And Optical Properties Of Nanomaterials

CB25. J. Jortner, A. Nitzan and M. A. Ratner
Foundations of molecular electronics - charge transport in molecular conduction junctions
In: Introducing Molecular Electronics, (Springer, Berlin, 2005)

CB24. A. Nitzan
Electronic Tunnel Factors in Molecular Electron Transfer and Molecular Conduction
Encyclopedia of Electrochemistry, Vol 2 eidted by E. J. Calvo, Wiley (2003).

CB23. A. Nitzan
Polar solvation dynamics: Theory and simulations
Handbook of Solvents, edited by G. Wypych, ChemTech Publishing (2001)

CB22. P. Graf and A. Nitzan
Numerical simulations of charge transport in inhomogeneous dielectric environments: Coarse graining considerations
Multiscale Computational Methods in Chemistry and Physics, edited by A. Brandt, J. Bernholc and K. Binder, Nato Science Series III. Computer and Systems Sciences, Vol 177 IOS Press (2001)

CB21. O. Durr, P. Pendzig, W. Dieterich, A. Nitzan
Model studies of diffusion in glassy and polymer ion conductors
Solid State Ionics: Science & Technology Proc. 6-th Asian Conf. on Solid State Ionics, edited by B. V. R. Chowdari and S. Chandra (World Scientific Publ. Co., Singapore, 1998) p. 33

CB20. O. Dürr, W. Dieterich and A. Nitzan
Charge transport in polymer ion conductors: A Monte Carlo Study
Multiscale Computational Methods in Chemistry and Physics, edited by A. Brandt, J. Bernholc and K. Binder, Nato Science Series III. Computer and Systems Sciences, Vol 177 IOS Press (2001)

CB19. W. Dieterich, O. Durr, P. Pendzig and A. Nitzan
Stochastic modelling of ion diffusion in complex systems
Proceedings of the 11th Max Born Symposium. Springer-Verlag, Berlin, Germany; 1999; p.175-85

CB18. P. Pendzig, W. Dieterich, D. Knödler, A. nitzan, R. Olender
Charged particle dynamics in disordered systems: Monte Carlo simulations of glassy and polymeric electrolytes
Proceedings of the International Seminar on current developments in disordered systems, Kurshetra, India, 1996, edited by D. K. Chaturvedi and G.E. Murch (TransTech Publications Switzerland, 1996)
Also: Materials-Science-Forum. vol.223-224; 1996; p.61-70.

CB17. V. Mujica, A. Nitzan, Yi Mao, W. Davis, M. Kemp, A. Roitberg and M. A. Ratner
Electron transfer in molecules and molecular wires: Geometry dependence, coherent transfer and control
In "electron transfer: From isolated molecules to biomolecules", Advances in Chemical

Physics, Vol 107 (edited by M. Bixon and J. Jortner), Part two, p. 403, 1999

CB16. M.C. Longergan, D.F. Shriver, A. Nitzan and M. Ratner
The mechanism of modeling of conductivity in polymer electrolytes
Mat. Res. Soc. Symp. Proc. **369**, 245(1995).

CB15. E. Neria and A. Nitzan
Numerical Studies of Solvation Dynamics
in Electrolyte Solutions in Ultrafast Phenomena in Condensed Molecular Systems, Edited by Y Gualduel and P. Rossky, Am. Phys. Soc (1993) .

CB14. E. Neria and A. Nitzan
Adiabatic and non-adiabatic effects in solvation dynamics
Springer Series in Chemical Physics Vol. 55 (Ultrafast Phenomena VIII), Edited by J.-L. Martin, A. Migus, G.A. Mourou and A.H. Zewail. (Springer VErlag, Berlin 1993)

CB13. A. Nitzan and Z. Schuss
Multidimensional barrier crossing
in: The Barrier Crossing Problem, edited by G.R. Fleming and P. Hänggi (World Scientific, 1994)

CB12. E. Neria, A. Nitzan, R.N. Barnett and U. Landman
Classical and quantum solvation
in: Inst. Phys. Conf. Ser. 126; Section VI, edited by A. Laberau (IOP Publishing Ltd, 1992), p.513.

CB11. U. Landman, R.N. Barnett, J. Jortner and A. Nitzan
Dynamics of localization and solvation of electron in finite clusters and bulk media
in Radiation Research: A 20th Century Perspective, edited by W.C. Dewey, M. edington, R.J.M. Fry, E.J. Hall and G.F. Whitmore (Academic Press, New York, 1992), p. 43

CB10. U.Landman, R.N.Barnett, A.Nitzan and G.Rajagopal
Energetics and dynamics of solvation and fission in clusters
Proceedings of the Europeen Physical Soc. Topical Conference (Turku, Finland, 1991), edited by M. Brennen, T. L"nnroth and F.B. Malik (Springer, Berlin, 1992), p.399

CB9. A. Nitzan
Small Dielectric Clusters: Size and Shape Dependence of Photophysical and Photochemical Properties.
in: Large Finite Systems, Edited by J. Jortner, A. Pullman and B. Pullman (Reidel, Dordrecht, 1987).

CB8. G. Kurizki and A. Nitzan
Lasing and Stimulated Raman Processes in Spherical and Spheroidal Droplets
in: Large Finite Systems, Edited by J. Jortner, A. Pullman and B. Pullman(Reidel, Dordrecht, 1987).

CB7. Z. Kotler, A. Nitzan and R. Kosloff
Quantum Dynamical Simulations of Tunneling Systems.
in: "Tunneling", J. Jortner and B.Pullman, eds. (Reidel, Dordrecht, 1986)

CB6. R.B. Gerber and A. Nitzan
Dynamics on Surfaces - Concluding Remarks
in: Dynamics on Surfaces, B. Pullman, J. Jortner, A. Nitzan and B.Gerber, (Reidel, Dordrecht, 1986).

CB5. K.F. Freed and A. Nitzan
Theoretical Analysis of Experimental Probes of Dynamics of Intramolecular Vibrational Relaxation.
in: Energy Storage and Redistribution in Molecules, edited by J. Hinge (Plenum, 1983).

CB4. J.I. Gersten and A. Nitzan
Electromagnetic Theory: A Spheroidal Model.
Surface Enhanced Raman Scattering, edited by R.K. Chang and T.E. Furtak (Plenum, N.Y. 1982) pp. 89-107.

CB3. A. Nitzan
The Critical Behavior of Non-Equilibrium Transitions in Reacting Diffusing Systems.
Dynamic of Synergetic Systems, edited by H. Haken (Springer, Berlin 1981) pp. 119-131.

CB2. B. Carmeli and A. Nitzan
Time Evolution of Isolated Non-Equilibrium Systems: The Pauli Master Equation Revisited.
Lecture Notes in Physics, Vol. 132: Systems Far from Equilibrium. (Springer, Berlin 1980) pp. 306-313.

CB1. A. Nitzan
Chemical Instabilities as Critical Phenomena Synergetics - A Workshsop.
Edited by H. Haken (Springer 1977) pp. 122-132.

EDITING

1. Dynamics of Molecule Surface Interactions.
Israel Journal of Chemistry , 4th Issue of Vol. 22 (1982) (with R.B. Gerber).

2. Dynamics on Surfaces
Edited by B. Pullman, J. Jortner, A. Nitzan and B. Gerber (Reidel,Dordrect,1984).

3. Dynamics of Molecular Processes
Israel Journal of Chemistry (1989) (with R.B. Gerber).

4. Perspectives in Chemistry
Israel Journal of Chemistry, 2003, Nos. 3-4 and 2004 Nos 1-3
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 Almau, 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 (Synchrontron 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
External Field Effect on Particle Diffusion above a Potential Barrier. 6th Int. Conf. on Noise in Physical Systems, Washington, D.C., 1981.

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 l986.

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 Arrowhed, 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, Berkely, 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 themalization 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 Metting 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 Metting (USA, 2000); Workshop on Chemical reaction dynamics (Telluride, USA, 2000); Quantum and Classical Transport (Ustron, Polland (2000)

70. Electron transmission through molecular layers: Inelastic effects
Driven Quantum Systems (Tutsing, 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?
Worksop 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), 38th IUVSTA Worshop (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 5th International Wilhelm and Else Heraeus Summer School: Molecules – Buiding 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 (Berkely, 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.

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.

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.