Gil Markovich December 2019

CURRICULUM VITAE

EDUCATION:

Period	Institution	Degree	Subject	Date of award
1985-88	Tel-Aviv University	B.Sc.	Chemistry	1988 Magna cum Laude
1989-96	Tel-Aviv University	Ph.D.	Chemical Physics	1997 with distinction

* Title of Doctoral Dissertation:
Photoelectron Spectroscopic Studies of Ion Solvation in Clusters.
Supervisor: Prof. Ori Cheshnovsky.

ACADEMIC AND PROFESSIONAL EXPERIENCE:

Period	Institution	Department	Function
1988-94	Tel-Aviv University	Chemistry	Assistant and Instructor Courses: *physical chemistry, statistical mechanics, introduction to solid state, advanced physical chemistry laboratory*.
1996-98	UCLA	Chemistry	Post-doctoral research Title of research: *Electron Transport Properties of Organically Functionalized Metal Nanocrystal Arrays*
1998-2003	Tel-Aviv University	Chemistry	Lecturer
2003-2008	Tel-Aviv University	Chemistry	Senior Lecturer
2008-2012	Tel Aviv University	Chemistry	Associate Professor
2010-2012	Tel Aviv University	Chemical Physics Dept. Head	
2011-2012	Tel Aviv University	Head of the graduate program in Materials and Nano-science	
2012-	Tel Aviv University	Chemistry	Full Professor
2012-2016	Tel Aviv University	Head of the School of chemistry	
2016-	The Alexander and Clara Stransky Chair in Chemistry of Advanced Materials		

PUBLIC EDUCATIONAL ACTIVITIES

2009 -	Giving science lectures to high-school and middle-school students and organizing/hosting school visits to university laboratories
2011-2012	Member of the high-school chemistry teaching committee, Israel Ministry of Education
2011-2013	Academic head (founding) of the Chemistry-Biomed track of the "Scientists of the Fututre" program for excellent high-school students at TAU's Unit for Science Oriented Youth.

OTHER UNIVERSITY ACTIVITIES

2015 -	Board member of Ramot (technology transfer company of Tel Aviv University)
2016-	University's appointments committee
2020-	Chair of academic board – Wolfson Applied Materials Research Center

FIELDS OF INTEREST

Nanomaterials synthesis and properties. Magnetic nanocrystals – studies of magnetization dynamics. Nanoscale ferroelectricity. Metal nanostructures – nanowires. Nano-chirality – interaction of chiral molecules with metallic and semiconductor nanostructures. Induction of chiroptical effects in inorganic nanocrystals and artificial plasmonic arrays with strong chiroptical properties.

LECTURES IN SCIENTIFIC MEETINGS AND SEMINARS (from 2005)

Year	Conference
2005	Israel Chemical Society meeting, Tel Aviv (February 2005, invited)
2005	Seminar at the Dept. of Physics, Ben Gurion University.
2005	NATO workshop on Nanocomposites for Secure Society, Greece (May 2005, invited)
2005	G.I.F. Meeting on Nanotubes and Nanowires , Dresden, Germany (June 2005, invited)
2006	Israel Chemical Society meeting, Tel Aviv (February 2006, invited)
2006	Seminar at Data Storage Systems Center, Carnegie Mellon University.
2006	American Physical Society meeting, Baltimore MD, USA (March 2006, contributed)
2006	Seminar at the Dept. of Physics, Pune University, India.
2006	Seminar at the National Chemical Laboratory, India.
2006	Israel-Bangalore meeting "From Molecules to Composites: Interdisciplinary approaches to Materials Research", Bangalore, India (May 2006, invited)
2006	Nanoscience seminar, Hebrew University.
2007	"Molecular Plasmonics", Jena, Germany (May 2007, invited)
2007	Seminar at the nanoscience center, Universidad Autonoma Barcelona
2007	"Chirality at the Nanoscale", Barcelona, Spain (September 2007, contributed)
2008	Nanoscience seminar, Ben Gurion University, invited lecture
2008	Seminar at the Faculty of Materials Engineering, Technion, invited lecture
2008	"Particles 2008", Orlando FL (May 2008, invited lecture)
2008	Gordon Research Conference on Magnetic Nanostructures, Aussois, France (Septemebr 2008, contributed poster)
2008	Nanoscience-Materials Seminar, TAU (November 2008), invited lecture
2009	Material Research Society, San Francisco CA, (April 2009, contributed oral presentation)
2009	"Molecular Plasmonics", Jena, Germany (May 2009, invited talk)
2009	American Chemical Society, Washington DC (August 2009, invited talk)
2009	Seminar at the physics department, Carnegie Mellon University, invited lecture
2010	The Efrima Memorial lecture, Nanoscience center, Ben Gurion University, invited lecture

2010 The annual meeting of the Israel society for Microscopy (May 2010, TAU, Organizer)
2010 Gordon Research Conference on Magnetic Nanostructures, Maine (August 2010, contributed poster and invited session chair)
2010 International Symposium on Small Particles and Inorganic Clusters, Oaxaca, Mexico (September 2010, contributed talk)
2010 Israel Vacuum Society symposium, Tel Aviv University (October 2010, invited talk)
2010 NanoIsrael, Tel Aviv (November 2010, invited talk)
2011 Israel Chemical Society meeting (February 2011, invited talk)
2011 ISMPC11, Finland (June 2011, invited talk)
2011 Condensed Matter seminar, University of Ohio (September 2011, invited lecture)
2012 Israel Chemical Society meeting (February 2012, invited talk)
2012 NanoIsrael, Tel Aviv (March 2012, invited oral presentation)
2012 Chemistry seminar, Ben Gurion University (April 2012, invited lecture)
2012 TAU Chemical Physics Symposium, (May 2012, invited talk)
2012 Ordered and Non-Ordered Superstructures of Nanosized Objects: Preparation, Properties, Applications and Modeling, Max Plank Institute, Dresden (July 2012, invited talk)
2012 American Chemical Society meeting, Philadelphia PA, USA (August 2012, contributed talk)
2013 R. A. Mashelkar lecture series at National Chemical laboratory, Pune, India (January 2013, invited lecture series)
2013 14th International Conference on Chiroptical Spectroscopy, Vanderbilt University, Nashville, TN, USA (Invited talk, June 2013)
2013 Microscopy at the Frontiers of Science 2013, Tarragona, Spain (Invited talk, Sept. 2013)
2014 Material Research Society, San Francisco CA, (April 2014, invited talk)
2014 Chemistry Seminar, Dept. of Chemistry, NYU (June 2014)
2014 Electronic and Magnetic Properties of Chiral Structures and their Assemblies, Telluride CO, USA (invited, June 2014)
2014 Chemistry seminar, Faculty of Chemistry, Technion (November 2014)
2015 Chemistry Colloquium, Weizmann Institute of Science (March 2015)
2015 Co-organizer of the first TAU-NYU symposium on "Frontiers in Polymer and Biomolecular Chemistry" (March 2015)
2015 Physics Seminar, Ben Gurion University (April 2015)
2015 Recent Advances in Spintronics, Safed, Israel (invited, May 2015)
2015 META 2015, New-York (August 2015)
2015 Chirality at the Nanoscale, Leuven, Belgium (contributed, November 2015)
2016 Seminar, Institut de Science et d'Ingénierie Supramoléculaires (ISIS), Université de Strasbourg (January 2016)
2016 Israel Materials Engineering Conference 17, Bar Ilan University (February 2016, invited talk)
2016` Israel Society for Microscopy meeting (May 2016, invited talk)
2016 Co-organizer of the second TAU-NYU symposium on "Frontiers in Organized and Nanoscale Matter" (June 2016)
2016 International Materials Research Conference, Cancun (August 2016)
2016 Seminar, Faculty of Chemistry, Sapienza University of Rome (October 2016)
2017 Israel Chemical Society meeting (February 2017, invited talk)

2017 TAU Nano-Center UK-Israel winter school (invited, February 2017)
2017 Seminar, Dept. of Materials Engineering, BGU (March 2017)
2017 Chiroptics 2017, Munich (invited, April 2017)
2017 CD 2017, Rennes, France (contributed, June 2017)
2017 Seminar at the Dept. of Chemistry, Angers University, France (June 2017)
2017 META 2017, Incheon, South-Korea (invited July 2017)
2017 Co-organizer, TAU-Potsdam U. Workshop on Nano-Bio-Physics (Nov. 2017)
2018 ACS Spring Meeting, New Orleans (March 2018)
2018 11th International Conference on Nanophotonics, Wroclaw, Poland (Invited, July 2018)
2018 Single Nanostructures, Nanomaterials, Aerogels and their Interactions: Combining Quantum Physics and Chemistry, International workshop, MPI Dresden (August 2018)
2018 Nano Israel, Jerusalem (Invited, October 2018)
2019 Israel Chemical Society meeting (February 2019, invited)
2019 2nd Photonic and Optoelectronic Materials Conference, UCL, London (April 2019, invited)
2019 CD 2019, Pisa (June 2019, invited)
2019 Chirality 2019, Bordeaux (July 2019, invited short course)
2019 META 2019, Lisbon (July 2019, invited)
2019 TAU Light-Matter Interaction Center's Summer School (Sept. 2019, invited)
2019 Contemporary Crystal Engineering and Solid-State Chemistry: Symposium commemorating G. M. J. Schmidt's 100th birthday, Weizmann Institute (Sept. 2019, invited)
2019 International Symposium on Plasmonics and Nanophotonics, Kobe, Japan (November 2019, invited)
2019 Symposium on "Chiro-optical Effects in Nanomaterials", Osaka Prefecture University (November 2019, invited)
2019 Physical Chemistry Seminar, Technical University Munich (December 2019)
2020 3rd Summer School on Soft Matter for Functional Materials, Bordeaux (June 2020, invited lecturer)

RESEARCH GRANTS:

Year	Institution	Occasion
1999-03	Israel Science Foundation	Research Grant
1999-02	Bikura (Israel Academy of Sciences)	Research Grant (Nanoscience)
2000-03	US-Israel BSF	Research Grant
2000-03	Ministry of Science	Infrastructure Grant, Advanced materials
2000-03	Ministry of Science	Infrastructure Grant, Electrooptics and Microelectronics
2003-06	Israel Science Foundation	Research Grant
2005-6	Israel Nano Initiative (by ISF)	Equipment grant, ($980,000)

PI (together with 3 PIs) – Controlled environment laboratory for nanoscience

2006-10	Israel Science Foundation	Research Grant
2007-11	US-Israel BSF	Research Grant

PI (with American partner) – my part $25,000/year

2007-10 Converging Technologies (ISF) Research Grant,
PI (together with 2 TAU PIs) – my part 200,000 IS/year

2009-12 German-Israel Foundation (GIF) Research Grant
PI (with German partner) – my part 35,000 EU/year

2009-11 Magneton project (Ministry for Industry and commerce)
Invention commercialization grant
With a company: PV Nanocell ~800000 IS

2010-14 Israel Science Foundation Research Grant
PI (with Alexander Kotlyar, TAU Dept. Biochemistry) 150,000 IS/year

2011-15 US-Israel BSF Research Grant
PI (with American partner) – my part $23,500/year

2011-13 India-Israel project, $30,000/year Research grant

2013-18 Nanotechnology Focused Technological Area project, coordinated by Ben Gurion University, ~50,000 IS/year

2014-18 Israel Science Foundation Research Grant
250,000 IS/year

2015-17 Momentum applied research fund (internal TAU) ~$250,000/year

2016-18 Kamin (with Yoram Dagan, TAU Physics) ~400,000 IS/year

2018-22 Israel Science Foundation Research Grant 280,000 IS/year

2019-21 Kamin (Israel Innovation Authority) ~400,000 IS/year

2019-23 BSF (with Alexander Govorov, Ohio U.) $37,500/year/researcher

ACADEMIC AND PROFESSIONAL AWARDS

1992	The Israel Chemical Society	Outstanding research student
1993-6	The Charles Clore Foundation	Clore Scholars Programme
1996-7	Fulbright Program	Post-doctoral fellowship
1996-7	Yad Hanadiv	Rothschild post-doctoral fellowship
2016	Sapienza University of Rome, Visiting professor	EU 5000
2018	The Tenne Family Prize for Nano Scale Sciences (by the ICS)	

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

1999-	Israel Chemical Society
2009-	Materials Research Society (USA)
2004-	American Chemical Society
2010-12	Israel Society for Microscopy, Board member

SUPERVISION OF Ph.D. STUDENTS:

Period	Name	Subject	Institution
2000-2007	Tal Meron	*Preparation and Assembly of Magnetic Nanocrystals*	TAU
2001-2006	Tamar Telem-Shafir	*Magnetic properties of Magnetic Nanoparticle Arrays*	TAU
2002-2007	Gabriel Shemer	*Magneto Optical Spectroscopy and Surface Enhanced Optical Rotation Effects*	TAU
2002-2006	Olga Krichevski	*Growth of Metal Nanowires on Surfaces*	TAU
2003-2009	Nurit Taub	*Electron transport in Magnetic Nanocrystal Arrays*	TAU
2004-2009	Einat Tirosh	*Controlling the Composition of Complex Oxide Nanocrystals: From Chemistry to Magnetism*	TAU
2007-2012	Daniel Szwarcman	*Nanoscale Ferroelectricity*	TAU
2009-2013	Daniel Azulai	*Fabrication and alignment of metal nanowire films*	TAU
2010-2013	Ben Maoz	*Properties of chiral metal nanostructures*	TAU
2010-2015	Amir Hevroni	*STM studies of magnetic Nanocrystals*	TAU
2011-2017	Assaf Ben Moshe	*Nanoscale Chirality*	TAU
2011-2017	Tatyana Belenkova	*2D Chirality*	TAU
2012-2018	Daniel Vestler	*Chirality in photonic crystals*	TAU
2015-2019	Muriel Tzadka	*Metal nanowire films*	TAU
2016-	Uri Hananel	*Luminescent chiral nanocrystals*	TAU
2019-	Gal Schwartz	*Mechanisms of symmetry breaking in chiral nanocrystals*	TAU

SUPERVISION OF M.Sc. STUDENTS:

1998-2001	Tamar Telem-Shafir	*Alignment of Gold Nanorods on Surfaces*	TAU
2002-2004	Gabriel Shemer	*Surface Enhancement of Magneto-Optical Effects*	TAU
2001-2003	Nurit Taub	*Seeded Growth of Gold Nnanorods On Surfaces*	TAU
2002-2004	Einat Tirosh	*Fluorescence of Magnetic Nanocrystals*	TAU
2003-2007	Raanan Novik	*Patterning of Metal Nanowires on Surfaces*	TAU
2005-2007	Daniel Szwarcman	*Electron Holography Studies of Nanostructures*	TAU
2006-2008	Daniel Azulai	*Preparation of Thin Films of Conductive Nanowires*	TAU
2007-2009	Itai Lieberman	*Plasmon Resonance Enhancement of CD*	TAU
2007-2009	Lola Brown	*Plasmonic Nanohole Arrays for UV Transmission*	TAU
2008-2010	Ben Maoz	*Defect Induced Magnetism*	TAU

2008-2012	Boris Tsukerman	*STM studies of Magnetic Nanocrystals*	TAU
2008-2010	Tatiana Belenkova	*Thin Films of Metal Nanowire Networks*	TAU
2008-2010	Amir Hevroni	*Flame Synthesis of Oxide Nanocrystals*	TAU
2008-2011	Sigalit Bechler	*Plasmon Resonance Enhancement of CD*	TAU
2009-2011	Hagit Gilon	*Thin Films of Metal Nanowire Networks*	TAU
2010-2012	Tom Shachar	*Theory and analysis of data on nanoscale magnetization dynamics*	TAU
2010-2012	Daniel Vestler	*Chiroptical effects in photonic materials*	TAU
2011-2013	Muriel Layani	*Templating chiral nanoaprticles in cholate Nanostructures*	TAU
2012-2014	Elad Cohen	*Thin Films of Metal Nanowire Networks*	TAU
2013-2015	Leah Pines	*Magnetic nanoparticles*	TAU
2017-	Bar Reuven	*Intrinsically chiral nanostructures*	TAU
2017-	Ofir Yeari	Passivation of defects in semiconductor surfaces	TAU
2018-2019	Gal Schwartz	Symmetry breaking in the formation of chiral nanocrystals	TAU