

RESHEF TENNE

Materials Scientist, Physical and Inorganic Chemist
The Drake Family Professor of Nanotechnology

Personal Details:

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Date & Place of Birth: 1944, Kibbutz Usha (Israel); Widower+ 3 children

Nationality: Israeli

Languages: Hebrew (mother tongue); English (spoken and written); French (spoken)

Webpage: <http://www.weizmann.ac.il/materials/TennePage.htm>

Specialization: Nanomaterials Science

Education:

B.Sc. in Chemistry and Physics, (1969), Hebrew University, Jerusalem

M.Sc. in Physical Chemistry, (1971), Hebrew University, Jerusalem (Prof. G. Stein, supervisor)

Ph.D. in Theoretical Chemistry (1976), Hebrew University, Jerusalem (Prof. A. Ben-Naim, supervisor)

Post-Doctorate in Theoretical Chemistry (1978), Battelle Institute, Geneva (Dr. E. Bergmann, supervisor)

Positions:

1979- Scientist Electrochemistry Group, Battelle Institute, Geneva

1979- Staff Scientist, the Weizmann Institute of Science

1981- Senior Scientist, the Weizmann Institute of Science

1985- Assoc. Professor, the Weizmann Institute of Science

1986- Visiting Professor, Solid State Institute, Technion, Haifa

1988- Visiting Professor, Pierre et Marie Curie University, Paris, France

1989- Visiting Professor (MRT Fellow), Solid State Physics Laboratory, CNRS, Meudon, France (Sabbatical)

1991- Visiting Professor (JSPS fellow), The University of Tokyo, Japan

1994- DAAD fellow, Hahn-Meitner Institute, Berlin, Germany

1995- Present, Professor, the Weizmann Institute of Science

2000-2007 Head, Department of Materials and Interfaces, Weizmann Institute of science

2000-2007 Director of the G.M.J. Minerva Center for Supramolecular Architectures

2003-2011 Director of the Helen and Milton Kimmel Center for Nanoscale Science

Chair: Incumbent of Helen & Milton A. Kimmelman Career Development Chair in perpetuity established by Helen and Milton A. Kimmelman, New York, NY (1983-1986). The Drake Family Chair in Nanotechnology (2004-)

Scientific Honors, Awards and Recognitions:

1976-1978- International Battelle Memorial Fellowship

1985- The Mordechai (Moma) Glickson Annual Research Prize

1996- Fellow of the Israeli Vacuum Society

2002- Fellow of the World Technology Network

2004- The Drake Family Chair in Nanotechnology

2005- The Kolthoff Prize in Chemistry of the Technion, Haifa

2005- Materials Research Society Medal, Boston

2005- Rafael Scientific Research Excellence Prize of the Israel Vacuum Society, Tel-Aviv

2006- Landau Prize of Mifal Hapais in Nanotechnology, Tel-Aviv

2008- Elected Fellow of the Materials Research Society (inaugural class of fellows)

2008- The Israel Chemical Society Excellence Prize

2011- Fellow of the Royal Society of Chemistry (FRSC)

2011- Member of the Israeli Academy of Sciences and Humanities (to become official in June)

2012- The C.N.R. Rao Award Lecture in the 14th Chem. Res. Soc. India Meeting (established by the Dr. A.V. Rama Rao Foundation), Mysore, India

Special lectures and recognitions

2009, 2010- Special Lecture Series hosted by the German Chemical Society (DGCh) in Dresden, Stuttgart

Darmstadt, Karlsruhe

2009- *INNT01*, 1st Workshop on Inorganic Nanotubes, San Sebastian, September- A Workshop in Honor of Professor Reshef Tenne's 65th Birthday (http://dipc.ehu.es/ws_presentacion.php?id=40)

2011- The Folman Lecture, Technion, Haifa

Technological recognitions

2004 -"ApNano Materials" selected by the Innovation World magazine as one of the top 21 companies of the 21st century

2004- "ApNano Materials" selected by the *Red Herring* as one of the 100 most innovative companies, New York

2006- "NanoLub" is the winner of the second annual *Nanotech Briefs* magazine Nano 50 contest, Boston

2006- "ApNano Materials" elected as Corporate Member of the World Technology Network, San Francisco

2010- "Ap-Nano Materials" selected for the "The Automotive Excellence (NoAE) Innovation-Competition Prize top 30", Würzburg Automotive Summit, Germany, Sponsored by The German Federal Ministry for Economics and Technology

2010- "Nanotechnology Company of the Year Award 2010" given by the Israel Ministry of Industry & Trade, Office of the Chief Scientist and MATIMOP (Israeli Industry Center for R&D).

Funding: ERC-AdG (2008- inaugural cycle): European Research Council: Advanced Research Grants -1.62 M Euro over 5 years

Other experience:

Teaching at both University and High Schools

1978 and 1979- Organizer of two International Workshops on the theory and applications of liquid and amorphous metals

1992-1996- Co-Chair of the annual symposia of the *Israeli Vacuum Society*

1986- Consultant: *Solar Energy Applications project* Battelle-Geneva

1981- Consultant- *Photoelectrochemical Applications*, Dornier System GmbH

1990-1992- Member of Teaching Board of Chemistry, Weizmann Institute of Science

1993-1996 – Member of Services Committee, Weizmann Institute of Science

-Advisory Committee for the following research centers:

1991 and 1994- *Interfaces and catalysis*, U. of Laval, under auspices of FCAR, Quebec

1997-*Institute of Photonics* Prof. M. Graetzel (EPFL,) on behalf of the Swiss Ministry of Education

1998-*Center of Photoenergetics of Organic Materials* headed by Prof. Y. Nakato, U. of Osaka on behalf of the Japanese Ministry of Education

1990-1992- Secretary of the *Israel Vacuum Society*

1992-1994- President of the *Israel Vacuum Society*

- Member of the following scientific boards:

1994- *Eshkol* foundation

1994-1997- France-Israel (*AFIRST*)

1995-1997-India-Israel Foundation

1997-Japan-Israel Foundation

2006-Legacy Heritage Fund of the Israeli Science Foundation

- Reviewer and member of promotion committee for the following faculties:

1990 and 1993-*Columbia University*, School of Physics, New York

1995-*University of Washington*, Dept. of Material Science and Engineering, Seattle

1999-*University of Oxford*, Dept of Materials Science, UK

1994 and 2001-the *Hebrew University*; 1995-1997-*Technion*; 1997 and 2010-*Ben-Gurion University*;

2004-*Bar-Ilan University*

1995 and 2008- Visitor of the American Airforce Labs under the program *Window to Science*

- Recipient of 2 International NEDO projects from the government of Japan:

1992-1995 with Prof. A. Fujishima, University of Tokyo, and

1995-1998 with Dr. S. Iijima, NEC

-Committees at the Weizmann Institute of Science:

Vice-chair of the Scientific Council of Professors of the Weizmann Institute; Member of the Steering Committee of the Scientific Council; Chair of the Research Associates' Promotion Committee; Member of the Research Associates' Tenure Committee (1997-1998)

1997-1999- Chair of the Materials Committee of the Israel Science Foundation

1997-Chair, the Lev Margulis Award Committee of the Israel Microscopy Society

1997- Member of Israeli Ministry of Science search committee for scientific councilors to embassies
 - Israel Chemical Society contributions:
 1997-2003- ICS Board member, Prize Committee member, and Treasurer
 1997- Member of ICS committee for the young faculty scientist excellence award; 1998-chair of the internet site selection committee; and 1999- committee for establishment of ICS awards
 1998-2000- Member of the Research Board of Advisors, Am. Biog. Inst.
 1999 and 2000- Member of the board for the Alon fellowship program, VATAT
 1999- Acting Chair of the Department of Materials and Interfaces, Weizmann Institute, Spring
 1999- Member, Committee for selection of internal research awards, Weizmann Institute
 1999- Member, Committee for the Canada-Israel joint R&D program, Ministry of Science
 2000-2002- Chairperson, Travel committee of the Weizmann Institute of Science
 2000-2002- Member, Promotion Committee of the Faculty of Chemistry, Weizmann Institute
 2000-2007- Member, Academic Board; Promotion Comm. and Honorary Deg. Comm., Holon Institute of Technology
 2000-2007- Head, Department of Materials and Interfaces, Weizmann Institute
 2001- Member, Large Equipment Committee, Israel Science Foundation
 2001- Board of Reviewers, NEDO, Japan
 2001-2007- Director, G. Schmidt Minerva Center for Supramolecular Architectures
 2001- Member, Award Committee, Israel Vacuum Society
 2002- Acting president, Israel Chemical Society
 2002- Co-founder of “ApNano Materials, Inc” (“NanoMaterials, Ltd”)
 2003- present- Director, the Helen and Martin Kimmel Center for Nanoscale Sciences
 2002-06- Member of the Steering and the Selection Committees for the Intl. H. Gerischer Prize of the Electrochemical Society
 2003-- Member, Board of the Israel Society for Microscopy
 2004- Member, Nanotechnology Initiative of the Israeli Ministry of Agriculture
 2004- Reviewer for the Third World Academy of Sciences
 2004- Member, Advisory Committee to the Israel Nanotechnology Initiative for Nano-Bio
 2004- Member, British Standard Panel for Nanotechnology of the BSI and 2005- Publicly Available Standard (PAS71)
 2004- Chairman, Review Comm. for the joint NSF (US)-Isr. Minist. Sci. Tech. research program
 2005-present- Member, Advisory Board of the Faculty of Materials Engineering, Technion
 2007 and 2008- Member, Selection Committee for the Harvey Prize
 2008-present- Member of the Board of Directors and General Assembly of the Landau Prize Foundation
 2007-2008- Member, Scientific Committee on Advanced Materials, Institute for Science and Technology, Austria
 2008- Member, Board of Reviewers for the Romanian Natl. Research Council (NURC), Bucharest
 2009- Member, Board of Reviewers, Swiss Natl. Sci. Found. for two programs: "Smart materials" and Centers of Excellence (NCCR)
 2009 and 2010- Co-convener, Faculty of Chemistry Colloquium, Weizmann Institute
 2010- Member, Board of Reviewers, Israel Science Foundation
 2011- Co-founder of “NanoMediCot, Ltd”
 2012- Co-chairperson-NanoIsrael

Editorial duties

2002-2006- Principal Editor-*Journal of Materials Research*

- Editorial Advisory Boards:

Materials Science Forum, *Trans Tech Publications* (1997-); *Chem. Mater* (2003-2008); *European J. Sol. State Inorg. Chem.* (1993-2000); *Solid State Sciences* (2000-); *Microscopy*, *Microanalysis*, *Microstructures* (1995-1999); *Advanced Functional Materials*, Wiley-VCH (2001-); *Materials Research Bulletin* (2005-); *Nanotechnology* (IoP) (2005-2008); *Recent Patents in Nanotechnology*, Bentham (2006-); *Chemistry*, *Asian Journal* Wiley-VCH (2006-); *Nano*, World Scientific Publishing (2006-); *Digest J. Nanomater. Biostruct.* (2006-); *The Open Nanosci. J.*, Bentham (2007-); *The Open Appl. Phys. J.*, Bentham (2007-); *PhysicaPlus* (On-Line Magazine of the Isr. Phys. Soc., 2006-); *Nano Research*, Springer and Tsinghua University Press (2007-); *Nano and Biomaterials* (2009-), InderScience; *Isr. J. Chem.*, Wiley-VCH (2010-); *NanoMaterials and Energy*, ICE Pub. (UK); *Mater. Sci. Appl.*, Scientific Research Publications, USA (2011-)

1997- Guest Editor, a special issue of *Fullerene Sci. and Technol.*, “Fullerene Research in Israel”

2006- Focused Issue Editor of the *J. Mater. Res.*, “Nanotubes and Nanowires”

2010- Co-editor for the special issue of the *Isr. J. Chem.*, “Inorg. Nanotubes and Nanostructures”

Reviewer for the following Journals and Organizations:

Nature, Science, Nature Materials, J. Am., PNAS, Chem. Soc., Phys. Rev. Lett., Angew. Chem. Intl. Ed., J. Phys. Chem., Adv. Mater., J. Mater. Res., J. Electrochem. Soc., J. Electroanal. Chem., J. Solid State Chem., Indian J. Tech., J. Appl. Electrochem., Appl. Surf. Science, Acta Materialia, Chem. Phys. Chem., NanoLett., Eur. J. Inorg. Chem., NSF, DOE, PRF-ACS, EU R&D Program, NEDO (Japan), ERC-Adv. Res. Grant

Professional societies:

Swiss and European Physical Societies; Israel Society for Microscopy; Israel Chemical Society; Israel Vacuum Society; Israel Physical Society; Israeli Association for Crystal Growth; American Physical Society; Electrochemical Society; American Chemical Society; Materials Research Society

Visiting scientist positions:

1983, July -Laboratory of Solid State Physics, CNRS, Meudon, France, with Dr. C. Lévy-Clément

1984, February -Laboratory of Solid State Physics, CNRS, Meudon, France, with Drs. C. Lévy-Clément and R. Triboulet

1984, May - Department of Physics, Brooklyn College of the City University of New York, with Prof. M. Tomkiewicz

1984, August - Institute of Chemistry, University of Bern, with Dr. G. Calzaferri

1985, February - Rockwell International R & D Center, Thousand Oaks, California, with Dr. Ron Haak

1985, December - Photoluminescence Laboratory, CNRS, Meudon, France, with Dr. H. Mariette

1986, September and 1987, February-Department of Physics, Konstanz University, Germany, February with Prof. E. Bucher and Dr. M. Lux-Steiner

1988, February and 1987, May - Department of Chemistry, Michigan University, Ann-Arbor, with Prof. A. Francis and Dr. E. Lifshitz

1989, December - Du-Pont Central Research Center, Wilmington DE, with Dr. B.A. Parkinson

1991, January - CSIR, Madrid, with Dr. P. Salvador

1990, September - Hahn-Meitner Institute, Berlin, with Dr. H. Lewerenz

1991, October-Laboratory of Solid State Physics, CNRS, Meudon, France, with Drs. C. Lévy-Clément and M. Rodot

1992, February - Department of Synthetic Chemistry, the University of Tokyo, with Prof. A. Fujishima

List of Publications

1. The Photochemistry of Solution of Eu(III) and Eu(II), Y. Haas, G. Stein and R. Tenne, *Isr. J. Chem.* **10**, 529-536 (1972).
2. Effect of Tetraalkylammonium Salts on the Hydrophobic Interaction, R. Tenne and A. Ben-Naim, *J. Phys. Chem.* **80**, 1120-1122 (1976).
3. Distribution Functions at Zero Separation and an Equation of State for Hard-Core Particles with a Finite Interaction Tail I, B. Barboy and R. Tenne, *Molec. Phys.* **31**, 1749-1964 (1976).
4. Distribution Functions at Zero Separation and an Equation of State for Hard-Core Particles with a Finite Interaction Tail II. Angle-Dependent Potential, B. Barboy and R. Tenne, *Molec. Phys.* **33**, 331-337 (1977).
5. Application of the Scaled Particle Theory to the Problem of Hydrophobic Interaction, A. Ben-Naim and R. Tenne, *J. Chem. Phys.* **67**, 627-633 (1977).
6. Application of the Scaled Particle Theory to the Problem of Hydrophobic Interaction: Part II - Mixtures of Water and Ethanol, R. Tenne and A. Ben-Naim, *J. Chem. Phys.* **67**, 4632-4636 (1977).
7. Scaled Particle Theory of Nonadditive Hard Spheres: Solutions for General Positive Nonadditivity, R. Tenne and E. Bergmann, *Phys. Rev. A* **17**, 2036-2045 (1978).
8. Scaled Particle Theory of Mixtures of Hard Spheres with Negatively Non-Additive Diameters, E. Bergmann and R. Tenne, *Chem. Phys. Lett.* **56**, 310-313 (1978).
9. Distribution Functions and the Equations of State of Sticky Hard Sphere Fluids in the Percus-Yevick Approximation. B. Barboy and R. Tenne, *Chem. Phys.* **38**, 369-387 (1979).
10. Lösungen des Modells des Skalierten Teilchens für Mischungen harter Kugeln mit Nicht-Additiven Durchmessern, E. Bergmann and R. Tenne, *Helvetica Physica Acta* **51**, 537 (1978).
11. Scaled Particle Theory for Mixtures of Nonadditive Hard Discs, R. Tenne and E. Bergmann, *J. Chem. Phys.* **70**, 1952-1962 (1979).
12. Un Model de la Localisation Partielle des Gas Adsorbés aus Surfaces des Solides, E. Bergmann and R. Tenne, *Helvetica Physica Acta* **52**, 100 (1979).
13. The Zero Separation Theorems for the Distribution Functions and the Equation of State for Hard Core Fluids, R. Tenne and B. Barboy, *Helvetica Physica Acta* **52**, 425 (1979).
14. Nonadditive Hard Discs, A Model for Partially Localized Adsorption, R. Tenne and E. Bergmann, *Phys. Rev. B* **22**, 702-716 (1980).
15. Improved Efficiency of CdSe Photoanodes by Photoelectrochemical Etching, R. Tenne and G. Hodes, *Appl. Phys. Lett.* **37**, 428-431 (1980).
16. Photoelectrochemistry of the $\text{CuInS}_2\text{S}_n^{2-}$ System, Y. Mirovsky, D. Cahen, G. Hodes, R. Tenne and W. Girit, *Solar Energy Mater.* **4**, 169-177 (1981).
17. The Effect of Photoelectrochemical Etching on the Performance of CdS Based Photoelectrochemical Cells, R. Tenne, *Appl. Phys.* **25**, 13-16 (1981).
18. The Effect of Some Surface Treatments on the Characteristics of Cd-Chalcogenides/Polysulfide Schottky Barrier, R. Tenne, *Ber. Bunsenges. Phys. Chem.* **85**, 413-421 (1981).
19. The Effect of Photoelectrochemical Etching on the Performance of CdTe Polysulfide Photoelectrochemical Cells, N. Müller and R. Tenne, *Appl. Phys. Lett.* **39**, 283-285 (1981).
20. Thermodynamics of a One-Dimensional Hard Rod Mixture with Non-Additive Lengths, B. Barboy and R. Tenne, *Molec. Phys.* **44**, 1137-1143 (1981).
21. The Effect of Added Salts on the Stability of Cd-Chalcogenide/Polysulfide Photoelectrochemical Cells, R. Tenne, *J. Electrochem. Soc.*, **129**, 143-145 (1982).
22. Photoelectrochemical Performance of the n-CdSe/Aqueous Polysulfide System at Room and Sub-Zero Ambient Temperatures, N. Müller, R. Tenne and D. Cahen, *J. Electroanal. Chem.* **130**, 373-379 (1982).
23. Activation Energy for Nucleation of the Supercooled Hard-Sphere Fluid, R. Tenne, *Chem. Phys. Lett.* **87**, 177-180 (1982).
24. Photoelectrochemical Solar Cells: Interpretation of Cell Performance Using Electrochemical Determination of Photoelectrode Properties, Y. Mirovsky, R. Tenne, G. Hodes and D. Cahen, *Thin Solid Films* **91**, 349-356 (1982).
25. Zero Separation Theorem for Systems with Long Range Interactions, R. Tenne, B. Barboy, S. Baer and M. Silbert, *Molec. Phys.* **47**, 913-924 (1982).
26. Ternary Chalcogenide-Based Photoelectrochemical Cells. The n-CdIn₂Se₄/Aqueous Polysulfide System, R. Tenne, Y. Mirovsky, Y. Greenstein and D. Cahen, *J. Electrochem. Soc.* **129**, 1506-1512 (1982).

27. The Relation between Performance and Stability of Cd-Chalcogenide/Polysulfide Photoelectrochemical Cells. I. Model and the Effect of Photoetching, R. Tenne, N. Müller, Y. Mirovsky and D. Lando, *J. Electrochem. Soc.* **130**, 852-860 (1983).
28. The Relation between Performance and Stability of Cd-Chalcogenide/Polysulfide Photoelectrochemical Cells: The Effect of Potential, R. Tenne, G. Hodes, J. Manassen, N. Müller, Y. Mirovsky, D. Lando and D. Cahen, *J. Electroanal. Chem.* **143**, 103-112 (1983).
29. Performance and Stability of CdSe/Polysulfide Photoelectrochemical Cells under Chopped Illumination, R. Tenne, *J. Electroanal. Chem.* **143**, 113-120 (1983).
30. Numerical Simulation of the Long-Term Performance and Corrosion of Photoelectrochemical Cells, H. Flaisher and R. Tenne, *J. Phys. Chem.* **87**, 3061-3068 (1983).
31. Selective Electrochemical Etching of *p*-CdTe (for Photovoltaic Cells), R. Tenne, *Appl. Phys. Lett.* **43**, 201-204 (1983).
32. Study of the Cd-Chalcogenide/Ferri-Ferrocyanide Photoelectrochemical Cells: Effect of Surface Morphology and Added Salt, R. Tenne, *J. Electrochem. Soc.* **130**, 2163-2169 (1983).
33. Dissociative Electron Transfer on Ionic Surfaces, Y. Zeiri, M. Shapiro and R. Tenne, *Chem. Phys. Lett.* **99**, 11-15 (1983).
34. Selective (Photo) Electrochemical Etching of Semiconductor Surfaces, R. Tenne and G. Hodes, *Surf. Sci.* **135**, 453-478 (1983).
35. Application of Cathodoluminescence Imaging for the Investigation of CdTe. The Effect of Photoetching, R. Tenne and A.K. Chin, *Mater. Lett.* **2**, 143-146 (1983).
36. Adsorption of Ions on Semiconductor Surfaces. I. Silver and Halide Ions on Silver Halides, Y. Zeiri, R. Tenne and M. Shapiro, *J. Chem. Phys.* **80**, 5283-5294 (1984).
37. Electrolyte Electroreflectance of Single-Crystal CdIn₂Se₄ in a Photoelectrochemical Solar Cell, M. Tomkiewicz, W. Siripala and R. Tenne, *J. Electrochem. Soc.* **131**, 736-740 (1984).
38. Improved Performance of Cadmium Chalcogenide Photoelectrochemical Cells: Surface Modification Using Copper Sulfide, H. Flaisher, R. Tenne and G. Hodes, *J. Phys. D.* **17**, 1055-1066 (1984).
39. Photoelectrochemical Etching of ZnSe and Nonuniform Charge Flow in Schottky Barriers, R. Tenne, H. Flaisher and R. Triboulet, *Phys. Rev. B.* **29**, 5799-5804 (1984).
40. A Pronounced Cation Effect on Performance and Stability of Cd-Chalcogenide/Polysulfide Photoelectrochemical Cells, S. Licht, R. Tenne, H. Flaisher and J. Manassen, *J. Electrochem. Soc.* **131**, 950-951 (1984).
41. Investigation into the Photocurrent Quadrature Signal of Photoelectrochemical Cells, H. Flaisher and R. Tenne, *J. Appl. Phys.* **56**, 2930-2939 (1984).
42. Photoelectrochemical etching of ZnS: Further Evidence for Non-Uniform Flow of Charge Carriers in Schottky Barriers, R. Tenne, and M. Shatky, *Appl. Phys.* **B35**, 243-247 (1984).
43. Evidence for Nonuniform Flow of Charge Carriers Through Semiconductor Junctions, R. Tenne, V. Marcu and N. Yellin, *Appl. Phys. Lett.* **45**, 1219-1222 (1984).
44. Improved Performance of InSe Based Photoelectrochemical Cells by Means of a Selective (Photo)Electrochemical Etching, R. Tenne, B. Theys, J. Rioux and C. Lévy-Clément, *J. Appl. Phys.* **57**, 141-146 (1985).
45. Controlled Photoelectrochemical Etching of CdSe and observation of a Photocathodic Effect, R. Tenne and W. Giriat, *J. Electroanal. Chem.* **186**, 127-137 (1985).
46. Electrical Properties of CdTe Crystals Grown by VUVG from Nonstoichiometric Charges, N. Yellin, A. Zemel and R. Tenne, *J. Electronic Materials* **14**, 85-94 (1985).
47. Photoelectrochemistry of CdSe in Sulfite Electrolyte, R. Tenne and G. Hodes, *Ber. Bunsenges. Phys. Chem.* **89**, 74-78 (1985).
48. Photoluminescence of CdSe: The Effect of Photoetching, R. Garuthara, M. Tomkiewicz and R. Tenne, *Phys. Rev. B.* **31**, 7844-7849 (1985).
49. Passivation of Recombination Centers in WSe₂ by Photoelectrochemical Etching, R. Tenne, W. Spahni, G. Calzaferri and A. Wold, *J. Electroanal. Chem.* **189**, 247-256 (1985).
50. Ternary Chalcogenide Based Photoelectrochemical Cells. V. Surface Analyses of the CuInX₂/aqueous Polysulfide Interface (X=S,Se), by X-ray Photoelectron Spectroscopy; Absence of Se/S Exchange in the CuInSe₂/S_n²⁻ System, Y. Mirovsky, G. Sawatzky, R. Tenne and D. Cahen, *J. Electrochem. Soc.* **132**, 1070-1076 (1985).
51. High Efficiency n-Cd(Se,Te)/S²⁻ Photoelectrochemical Cell Resulting from Solution Chemistry Control, S. Licht, R. Tenne, G. Dagan, G. Hodes, J. Manassen, D. Cahen, R. Triboulet, J. Rioux and C. Lévy-Clément, *Appl. Phys. Lett.* **46**, 608-611 (1985).

52. Ternary Chalcogenide-Based Photoelectrochemical Cells. VII. Analysis of the Chemical Processes Occurring at the CdIn₂Se₄ Surface During Photoelectrochemical Operation, R. Tenne, Y. Mirovsky, G. Sawatzky and W. Giriat, *J. Electrochem. Soc.* **132**, 1829-1835 (1985).
53. Photoelectrochemical Etching of Semiconductors: Wavelength Dependence, R. Tenne, V. Marcu and Y. Prior, *Appl. Phys.* **A37**, 205-209 (1985).
54. Ternary Cd(Se,Te) Alloy Semiconductors: Synthesis, Material Characterization and High Efficiency Photoelectrochemical Cells, C. Lévy-Clément, R. Triboulet, J. Rioux, A. Etcheberry, S. Licht and R. Tenne, *J. Appl. Phys.* **58**, 4703-4709 (1985).
55. Passivation of Recombination Centers in n-WSe₂ Yields High Efficiency (greater than 14 percent) Photoelectrochemical Cell, R. Tenne and A. Wold, *Appl. Phys. Lett.* **47**, 707-709 (1985).
56. Cation Effects on the Electrochemistry of Anions in Polysulfide Photoelectrochemical Cells, S. Licht, R. Tenne, H. Flaisher and J. Manassen, *J. Electrochem. Soc.* **133**, 52-59 (1986).
57. Electrochemical Characterization of Photoetching Products of CdSe, V. Marcu, R. Tenne and I. Rubinstein, *J. Electrochem. Soc.* **133**, 1143-1148 (1986).
58. Surface Analyses of the CdSe_{0.65}Te_{0.35}/Aqueous Polysulfide Interface in Relation to its Photoelectrochemical Properties, R. Tenne, C. Lévy-Clément and G. Sawatzky, *J. Vac. Sci. Technol. A.* **4**, 2470-2476 (1986).
59. Photoelectrochemical Etching of n-MoSe₂, R. Tenne and A. Wold, *Ber. Bunsenges. Phys. Chem.* **9**, 545-549 (1986).
60. Electrochemical Photocapacitance of ZnSe: Effect of Photoelectrochemical Etching, R. Tenne, R. Haak and R. Triboulet, *Ber. Bunsenges. Phys. Chem.* **91**, 597-599 (1987).
61. The Hg_{1-x}CdxTe_{1-y}Se_y System: The Existence Region of the Wurzite Structure, N. Yellin, A. Raizman, A. Shachna, H. Shacham and R. Tenne, *Solar Energy Mater.* **15**, 115-120 (1987).
62. Crystallographic Effects on the Photoelectrochemical Etching of CdTe, V. Marcu, R. Tenne and N. Yellin, *Appl. Surf. Sci.* **28**, 429-438 (1987).
63. Photoluminescence of CdSe: Evidence for Selective Etching of Donor States, R. Tenne, H. Mariette, C. Lévy-Clément and R. Jäger-Waldau, *Phys. Rev. B* **36**, 1204-1207 (1987).
64. A Light-Variation Insensitive High Efficiency Solar Cell, S. Licht, G. Hodes, R. Tenne and J. Manassen, *Nature* **326**, 863-864 (1987).
65. Photoelectrochemical Properties of the Dilute Magnetic Semiconductor, Cd_{0.95}Mn_{0.05}Se, R. Tenne, E. Klein and W. Giriat, *Solar Energy Mater.* **17**, 65-72 (1988).
66. Control of Impurity Concentrations on CdSe Surfaces, R. Tenne, H. Mariette, C. Lévy-Clément and R. Jäger-Waldau, *J. Cryst. Growth* **86**, 826-833 (1988).
67. Catalytic Effect of Metal ions on In:SnO₂/Aqueous Polysulfide Interface: Application for Polysulfide Based Photoelectrochemical Cells, R. Tenne, M. Braun, R. Braun, W. Kerfin and W. Koschel, *Ber. Bunsenges. Phys. Chem.* **92**, 42-46 (1988).
68. Passivation of Recombination Centers on WSe₂ Surface, D. Mahalu, A. Jakubowicz, A. Wold and R. Tenne, *Phys. Rev. B.* **38**, 1533-1536 (1988).
69. Photoelectrochemical Properties of the Cd-rich Cd_xHg_{1-x}Te alloy, C. Lévy-Clément, R. Triboulet and R. Tenne, *Solar Energy Mater.* **17**, 201-206 (1988).
70. Photocurrent Oscillations in the Cadmium Telluride Electrolyte Systems, V. Marcu and R. Tenne, *J. Phys. Chem.* **92**, 7089-7092 (1988).
71. Adsorption of Cesium from Sulphide Solutions on II-VI Compounds, M. Peisach, C.A. Rabe, C.A. Pineda, D. Mahalu and R. Tenne, *J. Vac. Sci. Technol. B* **6**, 1506-1513 (1988).
72. Thin Film CdSe: Photoluminescence and Electronic Measurements, R. Jäger-Waldau, N. Stücheli, M. Braun, M. Lux-Steiner, E. Bucher, Tenne, H. Flaisher, W. Kerfin, R. Braun and W. Koschel, *J. Appl. Phys.* **64**, 2601-2607 (1988).
73. Chemical Modifications of Hg_{0.1}Cd_{0.9}Te Surfaces: Analysis with Auger Electron Spectroscopy, R. Tenne, R. Brener and R. Triboulet, *J. Vac. Sci. Technol. A* **7**, 2570-2575 (1989).
74. WSe₂: Optical and Electrical Properties as Related to Surface Passivation of Recombination Centers, A. Jakubowicz, D. Mahalu, M. Wolf, A. Wold and R. Tenne, *Phys. Rev. B* **40**, 2992-3000 (1989).
75. Catalytic Effect of Heavy Metal Ions on the SnO₂/Aqueous Polyiodide Interface and its Application to Photoelectrochemical Cells, R. Tenne, M. Peisach, C.A. Rabe, C.A. Pineda and A. Wold, *J. Electroanal. Chem.* **269**, 389-397 (1989).
76. On the Kinetics of Charge Transfer Between an Illuminated CdSe Electrode and Polysulfide Electrolyte, P. Alloune, H. Cachet, M. Froment and R. Tenne, *J. Electroanal. Chem.* **269**, 295-304 (1989).
77. Room-Temperature Absorption Study of CdTe-ZnTe Superlattices, H. Shtrikman, R. Tenne, D. Mahalu and E. Finkman, *Appl. Phys. Lett.* **55**, 553-556 (1989).

78. Transport and Optical Properties of Low-Resistivity CdSe, R. Tenne, R. Jäger -Waldau, M. Lux-Steiner, E. Bucher, J. Rioux and C. Lévy-Clément, *Phys. Rev. B* **42**, 1763-1772 (1990).
79. A New Process for Optical Data Recording by Photoelectrochemical Etching, A. Ryan, C. Lévy-Clément, D. Mahalu and R. Tenne, *Ber. Bunsenges. Phys. Chem.* **94**, 671-676 (1990).
80. Controlled Photocorrosion of Tungsten Diselenide: Influence of Molecular Oxygen, D. Mahalu, M. Peisach, A. Wold, and R. Tenne, *J. Phys. Chem.* **94**, 8012-8013 (1990).
81. Primary Reactions in the Photocorrosion of CdSe through Photocapacitance Measurements, P. Allongue and R. Tenne, *J. Electrochem. Soc.* **138**, 261-268 (1991).
82. Efficiency and Stability Enhancement of n-Si Photoelectrodes in Aqueous Solutions, C. Lévy-Clément, A. Lagoubi, M. Neumann-Spallart, M. Rodot, and R. Tenne, *J. Electrochem. Soc.* **138**, L69-L71 (1991).
83. Microscopy of Mixed Surfaces on Layered Semiconductors, L. Margulis, D. Mahalu, B.A. Parkinson, and R. Tenne, *Scanning Microscopy* **5**, 953 (1991).
84. Preparation of WSe₂ Surfaces with High Photoactivity, D. Mahalu, L. Margulis, A. Wold, and R. Tenne, *Phys. Rev. B., (Rapid Commun.)* **45**, 1943-1946 (1992).
85. Shallow Donor State Removal via Photoelectrochemical Etching of Cd(Se,Te), E. Galun, G. Hodes, M. Peisach, E. Muranevich, and R. Tenne, *J. Crystal Growth* **117**, 666-671 (1992).
86. Photoelectrochemical Etching of Silicon, C. Lévy-Clément, A. Lagoubi, R. Tenne, and M. Neumann-Spallart., *Electrochem. Acta* **37**, 877-888 (1992).
87. Unusual Photoluminescence of Porous CdS (CdSe), R. Tenne, V. Nabutovsky, E. Lifshitz, and A.F. Francis, *Solid State Commu.* **82**, 651-654 (1992).
88. Preparation and Microstructure of WS₂ Thin Films, M. Genut, L. Margulis, G. Hodes and R. Tenne, *Thin Solid Films* **217**, 91-97 (1992).
89. Effect of Substrate on Growth of WS₂ Thin Films, M. Genut, L. Margulis, R. Tenne and G. Hodes, *Thin Solid Films* **219**, 30-36 (1992).
90. Photostimulated Gettering of Deep Band-gap Impurities from Semiconductors by Resonance Excitation: Fe from Cd_{0.98}Fe_{0.02}Se, M. Homyonfer, H.-H. Strehblow, W. Giriat, and R. Tenne, *Phys. Rev. B* **47**, 1244-1248 (1993).
91. Polyhedral and Cylindrical Structures of Tungsten Disulphide, R. Tenne, L. Margulis, M. Genut, and G. Hodes, *Nature* **360**, 444-446 (1992). See also write-up in *Scientific American*, p. 24, February (1993).
92. Absorption Tail of Low Resistivity CdSe_xTe_{1-x}: Comparison Between Absorption and Quantum Efficiency Measurements, M. Neumann-Spallart, E. Galun, G. Hodes, C. Lévy-Clément, Y. Marfaing, E. Muranevich, and R. Tenne, *J. Appl. Phys.* **73**, 7753-7760 (1993).
93. Collection Efficiency of Photoexcited Carriers of Electrochemically Etched Surfaces, V.M. Nabutovsky, K. Eherman, and R. Tenne, *J. Appl. Phys.* **73**, 2866-2871 (1993).
94. Microscopic Phase Stability of the Dilute Magnetic Semiconductor Cd_{1-x}Fe_xSe, E. Klein, M. Homyonfer, W. Giriat, and R. Tenne, *J. Mater. Res.* **8**, 1348-1352 (1993).
95. Efficient Electrochemical Reduction of Nitrate to Ammonia Using Conductive Diamond Film Electrodes, R. Tenne, K. Patel, K. Hashimoto, and A. Fujishima, *J. Electroanal. Chem.* **347**, 409-415 (1993).
96. WSe₂/Tungsten-Oxide Interface. Structure and Photoluminescence, R. Tenne, K. Eherman, K. Mahaln, M. Peisach, W. Kautek, A. Wold, R. Matson, and D.H. Waldeck, *Ber. Bunsenges. Phys. Chem.* **97**, 702-709 (1993).
97. Nested Fullerene-Like Structures, L. Margulis, G. Salitra, R. Tenne*, and M. Talianker, *Nature* **365**, 113-114 (1993).
98. Room Temperature Photoluminescence of Photoelectrochemically Etched n-Type Si, E. Galun, A. Lagoubi, R. Tenne, and C. Lévy - Clément, *J. Lum.* **57**, 125-129 (1993).
99. Nested Polyhedra of MX₂ (M=W,Mo;X=S,Se) Probed by High Resolution Electron Microscopy and Scanning Tunneling Microscopy, M. Hershinkel, L.A. Gheber, V. Volterra, J.L. Hutchison, L. Margulis, and R. Tenne, *J. Am. Chem. Soc.* **116**, 1914-1917 (1994).
100. Highly Oriented WSe₂ Thin Films Prepared by Selenization of Evaporated WO₃, G. Salitra, G. Hodes, E. Klein, and R. Tenne, *Thin Solid Films* **245**, 180-185 (1994).
101. Elastic Equilibrium of Curved Thin Films, D.J. Srolovitz, S.A. Safran, and R. Tenne, *Phys. Rev. B* **49**, 5260 - 5270 (1994).
102. The Microstructure of Titanium-Modified Silica Glass Waveguides Prepared by the Sol-Gel Method, Y. Sorek, R. Reisfeld, and R. Tenne, *Chem Phys. Lett.* **227**, 235-242 (1994).
103. Efficient Reduction of Nitrite and Nitrate to Ammonia Using Thin-Film B-Doped Diamond Electrodes, C. Reuben, E. Galun, H. Cohen, R. Tenne, R. Kalish, Y. Muraki, K. Hashimoto, A. Fujishima, J.E. Butler, and C. Lévy-Clément, *J. Electroanal. Chem.* **396**, 233-239 (1995).
104. High-Rate, Gas-Phase Growth of MoS₂ Nested Inorganic Fullerenes and Nanotubes, Y. Feldman, E. Wasserman, D.J. Srolovitz, and R. Tenne, *Science* **267**, 222-225 (1995).

- 105.** Cation Electrolytic Modification of n-WSe₂/Aqueous Polyiodide Photoelectrochemistry, S. Licht, N. Myung, R. Tenne and G. Hodes, *J. Electrochem. Soc.* **142**, 840-844 (1995).
- 106.** Morphology of n-type Macroporous Silicon: Doping Density Dependence, E. Galun, C. Reuben, S. Matlis, R. Tenne, and C. Lévy-Clément, *J. Phys. Chem.* **99**, 4132-4140 (1995).
- 107.** Morphology of Nested Fullerenes, D.J. Srolowitz, S.A. Safran, M. Homyonfer, and R. Tenne, *Phys. Rev. Lett.* **74**, 1779-1782 (1995).
- 108.** Crystallization of Layered Metal-Dichalcogenides Films on Amorphous Substrates, E. Galun, H. Cohen, L. Margulis, A. Vilan, T. Tsirlina, M. Hershinkel, W. Jaegermann, K. Ellmer, G. Hodes, and R. Tenne, *Appl. Phys. Lett.* **67**, 3474-3437 (1995).
- 109.** TEM study of chirality in MoS₂ nanotubes, L. Margulis, P. Dluzewski, Y. Feldman, and R. Tenne, *J. Microscopy* **181**, 68-71 (1996).
- 110.** Photoelectrochemical Reduction of Carbon Dioxide in Aqueous Solutions on p-GaP Electrodes: an a.c. impedance study with phase-sensitive detection, H. Flaisher, R. Tenne, and M. Halmann, *J. Electroanal. Chem.* **402**, 97-105 (1996).
- 111.** Characterization of Oriented Thin Films of WSe₂ Grown by van der Waals Rheotaxy, R. Tenne, E. Galun, A. Ennaoui, S. Fiechter, K. Ellmer, M. Kunst, Ch. Koelzow, Ch. Pettenkofer, S. Tiefenbacher, R. Scheer, H. Jungblut, and W. Jaegermann, *Thin Solid Films* **272**, 38-42 (1996).
- 112.** Electrochemical Study of Diamond Thin Films in Neutral and Basic Solutions of Nitrate, F. Bouamrane, A. Tadjeddine, J.E. Butler, R. Tenne, and C. Lévy-Clément, *J. Electroanal. Chem.* **405**, 95-99 (1996).
- 113.** Bulk Synthesis of Inorganic Fullerene-Like MS₂ (M=Mo, W) from the Respective Trioxides and the Reaction Mechanism, Y. Feldman, G.L. Frey, M. Homyonfer, V. Lyakhovitskaya, L. Margulis, H. Cohen, G. Hodes, J.L. Hutchison, and R. Tenne, *J. Am. Chem. Soc.* **118**, 5362-5367 (1996).
- 114.** Nucleation of WS₂ Fullerenes at Room Temperature, L. Margulis, S. Iijima and R. Tenne, *Microscopy, Microanalysis, Microstructures* **7**, 87-89 (1996).
- 115.** Scanning Tunneling Microscope Induced Crystallization of Fullerene-like MoS₂, M. Homyonfer, Y. Mastai, M. Hershinkel, V. Volterra, J.L. Hutchison, and R. Tenne, *J. Am. Chem. Soc.* **118**, 7804-7808 (1996).
- 116.** Highly Textured Films of Layered Metal Disulfide 2H-WS₂: Preparation and Optoelectronic Properties, A. Matthäus, A. Ennaoui, S. Fiechter, T. Kiesewetter, K. Diesner, M. Kunst, I. Sieber, W. Jaegermann, T. Tsirlina, and R. Tenne, *J. Electrochem. Soc.* **144**, 1013-1019 (1997).
- 117.** Surface Modifications: Nanostructures and Nested Polyhedra Generated by Pulsing the STM Tip, M. Hershinkel, L.A. Gheber, M. Homyonfer, R. Tenne and V. Volterra, *Surf. Sci. Rev.* **4**, 1015-1020 (1997).
- 118.** Intercalation of Inorganic Fullerene-Like Structures Yields Photosensitive Films and New Tips for Scanning Probe Microscopy, M. Homyonfer, B. Alpers, Yu. Rosenberg, L. Sapir, S.R. Cohen, G. Hodes, and R. Tenne, *J. Am. Chem. Soc.* **119**, 2693-2698 (1997).
- 119.** Hollow Nanoparticles of WS₂ as Potential Solid-State Lubricants, L. Rapoport, Yu. Bilik, Y. Feldman, M. Homyonfer, S.R. Cohen, and R. Tenne, *Nature* **387**, 791-793 (1997). See also News and Views, *Nature* **387**, 761 (1997).
- 120.** Preparation and Characterization of CdS Films Synthesized in Situ in Zirconia Sol-Gel Matrix, M. Zelner, H. Minti, R. Reisfeld*, H. Cohen, and R. Tenne, *Chem. Mater.*, **9**, 2541-2543 (1997).
- 121.** Electrochemical Deposition of Quantized Particles MoS₂ Thin-Films, E.A. Ponomarev, A. Albu-Yaron, R. Tenne, and C. Lévy-Clément, *J. Electrochem. Soc.* **144**, L277-L279 (1997).
- 122.** Negative Curvature in Inorganic Fullerene-like Structure, M. Homyonfer, Y. Feldman, L. Margulis, and R. Tenne, *Fullerene Sci. Tech.* **6**, 59-66 (1998).
- 123.** Synthesis and Characterization of Inorganic Fullerene-like WSe₂, T. Tsirlina, Y. Feldman, M. Homyonfer, J. Sloan, J.L. Hutchison and R. Tenne, *Fullerene Sci. Tech.* **6**, 157-165 (1998).
- 124.** Optical Absorption Spectra of Inorganic Fullerenelike MS₂ (M=Mo, W), G. L. Frey, S. Elani, M. Homyonfer, Y. Feldman, and R. Tenne, *Phys. Rev. B* **57**, 6666-6671 (1998).
- 125.** Underpotential Deposition of Cu on Boron-Doped Diamond Thin Films, F. Bouamrane, A. Tadjeddine, R. Tenne, J.E. Butler, R. Kalish, C. Lévy-Clément, *J. Phys. Chem.* **102**, 134-140 (1998).
- 126.** Near Field Electron Energy Loss Spectroscopy of Nanoparticles, H. Cohen, T. Maniv, R. Tenne, Y. Rosenfeld-Hacohen, O. Stephan, and C. Colliex, *Phys. Rev. Lett.* **80**, 782-785 (1998).
- 127.** Highly Oriented Photoactive Polycrystalline MoS₂ Layers Obtained by Van der Waals Rheotaxy Technique from Electrochemically Deposited Thin Films, E.A. Ponomarev, R. Tenne, A. Katty, and C. Lévy-Clément, *Solar Energy Mater. Solar Cells* **52**, 125-133 (1998).
- 128.** Stress-Induced Fragmentation of Multiwall Carbon Nanotubes in a Polymer Matrix, H.D. Wagner, O. Lourie, Y. Feldman, R. Tenne, *Appl. Phys. Lett.* **72**, 188-190 (1998).
- 129.** The Tribological Behavior of Type II Textured MX₂ (M=Mo,W;X=S,Se) Films, S.R. Cohen, L. Rapoport, E.A. Ponomarev, H. Cohen, T. Tsirlina, R. Tenne, and C. Lévy-Clément, *Thin Solid Films* **324**, 190-197 (1998).

- 130.** Kinetics of Nested Inorganic Fullerene-like Nanoparticle Formation, Y. Feldman, V. Lyakhovitskaya, and R. Tenne, *J. Am. Chem. Soc.* **120**, 4176-4183 (1998).
- 131.** Optical Properties of MS_2 (M=Mo,W) Inorganic Fullerene-Like and Nanotube Material Optical Absorption and Resonance Raman Measurements, G.L. Frey, R. Tenne, M.J. Matthews, M.S. Dresselhaus and G. Dresselhaus, *J. Mater. Res.* (special issue dedicated to carbon nanotubes) **13**, 2412-2417 (1998).
- 132.** Cage Structures and Nanotubes of $NiCl_2$, Y. Rosenfeld Hacoheh, E. Grunbaum, R. Tenne*, J. Sloan, and J.L. Hutchison, *Nature* **395**, 336-337 (1998). See also *New Scientist*, 26.9.98, p.17.
- 133.** Defect and Ordered Tungsten Oxides Encapsulated Inside 2H-WX₂ (X=S,Se) Fullerene-Related Structures, J. Sloan, J.L. Hutchison, R. Tenne, Y. Feldman, M. Homyonfer, and T. Tsirlina, *J. Solid State Chem.* **144**, 100-117 (1999).
- 134.** Inorganic Fullerene-like Material as Additives to Lubricants: Structure-Function Relationship, L. Rapoport, Y. Feldman, M. Homyonfer, H. Cohen, J. Sloan, J.L. Hutchison, and R. Tenne, *Wear* **225-229**, 975-982 (1999).
- 135.** Encapsulation of WC Inside 2H-WS₂ Inorganic Fullerene Related Cage Structures, A. Rothschild, J. Sloan, A.P.E. York, M. L.H. Green, J.L. Hutchison, and R. Tenne, *J. Chem. Soc., Chem. Commun.* 363-364 (1999).
- 136.** Microtribology and Direct Force Measurements of WS₂ Nested Fullerene-Like Nanostructures, Y. Golan, C. Drummond, M. Homyonfer, R. Tenne, and J. Israelachvili, *Adv. Mater.* **11**, 934-937 (1999).
- 137.** Raman and Resonance Raman Investigation of MoS₂ Nanoparticles, G.L. Frey, R. Tenne, M.J. Matthews, M.S. Dresselhaus, G. Dresselhaus. Optical properties of MS_2 (M=Mo,W) inorganic fullerene-like and nanotube material *Phys. Rev. B* **60**, 2883-2892 (1999).
- 138.** Photoelectrochemical Studies with Inorganic Cage Structures of Metal Dichalcogenides, B. Alpers, M. Homyonfer, R. Tenne, *J. Electroanal. Chem.* **473**, 186-191 (1999).
- 139.** Nanotribology of Novel Metal Dichalcogenides, S.R. Cohen, Y. Feldman, H. Cohen, and R. Tenne, *Appl. Surf. Sci.* **144-145**, 603-607 (1999).
- 140.** Synthesis of Bulk WS₂ Nanotube Phases, A. Rothschild, G.L. Frey, M. Homyonfer, M. Rappaport and R. Tenne, *Mater. Res. Innov.* **3**, 145-149 (1999).
- 141.** H. Cohen, T. Maniv, Y. Rosenfeld-Hacoheh, R. Tenne, C. Colliex, Comment on "Near-field electron energy loss spectroscopy of nanoparticles" – Reply, *Phys. Rev. Lett.* **83**, 659 (1999).
- 142.** WS₂ Nanotubes as Tips in Scanning Probe Microscopy, A. Rothschild, S.R. Cohen and R. Tenne, *Appl. Phys. Lett.* **75**, 4025-4028 (1999).
- 143.** *In Situ* Imaging of Shearing Contacts in the Surface Forces Apparatus, Y. Golan, C. Drummond, J. Israelachvili and R. Tenne, *Wear* **245**, 190-195 (2000).
- 144.** The Growth of WS₂ Nanotubes Phases, A. Rothschild, J. Sloan and R. Tenne, *J. Am. Chem. Soc.* **122**, 5169-5179 (2000).
- 145.** Influence of the Electrochemical Deposition Parameters on the Microstructure of MoS₂ Thin Films, A. Albu-Yaron, C. Levy-Clement, A. Katty, S. Bastide and R. Tenne, *This Solid Films* **361**, 223-228 (2000).
- 146.** Study on Preparation, Growth Mechanism and Optoelectronic Properties of Highly Oriented WSe₂ Thin Films, T. Tsirlina, V. Lyakhovitskaya, S. Fiechter and R. Tenne, *J. Mater. Res.* **15**, 2636-2646 (2000).
- 147.** Morphology of Multi-wall WS₂ Nanotubes, A. Rothschild, R. Popovitz-Biro, O. Lourie and R. Tenne, *J. Phys. Chem. B* **104**, 8976-8981 (2000).
- 148.** Growth Mechanism of MoS₂ Fullerene-Like Nanoparticles by the Gas Phase Synthesis, A. Zak, Y. Feldman, V. Alperovich, R. Rosentsveig, and R. Tenne, *J. Am. Chem. Soc.* **122**, 11108-11116 (2000).
- 149.** New Reactor for Production of Tungsten Disulfide Onion-Like (Inorganic Fullerene-Like) Nanoparticles, Y. Feldman, A. Zak, R. Popovitz-Biro and R. Tenne, *Solid State Sci.* **2**, 663-672 (2000).
- 150.** Preparation and Characterization of CdTe Nanoparticles in Zirconia Films Prepared by the Sol-Gel Method, M. Zelner, H. Minti and R. Reinfeld, H. Cohen, Y. Feldman, S.R. Cohen and R. Tenne, *J. Sol Gel Sci Tech.* **20**, 153-160 (2001).
- 151.** Slow Release of Fullerene-Like WS₂ Nanoparticles as a Superior Solid Lubrication Mechanism in Composite Matrices, L. Rapoport, M. Lvovsky, I. Lapsker, V. Leshchinsky, Yu Volovik, Y. Feldman, A. Zak, and R. Tenne, *Adv. Eng. Mater.* **3**, 71-75 (2001).
- 152.** Friction and Wear of Bronze Powder Composites Including Fullerene-Like WS₂ Nanoparticles, L. Rapoport, M. Lvovsky, I. Lapsker, V. Leshchinsky, Yu Volovik, Y. Feldman, and R. Tenne, *Wear* **249**, 149-156 (2001).
- 153.** Nanoparticles of CdCl₂ with Closed Cage Structure, R. Popovitz-Biro, A. Twersky, Y. Rosenfeld Hacoheh and R. Tenne, *Isr. J. Chem.* **41**, 7-14 (2001).
- 154.** Slow Release of Fullerene-Like WS₂ Nanoparticles from Fe-Ni-Graphite Matrix: a Self-Lubricating Nanocomposite, L. Rapoport, M. Lvovsky, I. Lapsker, V. Leshchinsky, Yu Volovik, Y. Feldman, A. Margolin, R. Rosentsveig and R. Tenne, *NanoLett.* **1**, 137-140 (2001).
- 155.** Microtribology and Friction-Induced Material Transfer in WS₂ Nanoparticle Additives, C. Drummond, N.A. Alcantar, J. Israelachvili, R. Tenne, and Y. Golan, *Adv. Funct. Mater.* **11**, 348-354 (2001).

156. Diamond/CdTe: a new inverted heterojunction CdTe thin film solar cell, P. von Huth, J.E. Butler and R. Tenne, *Solar Energ. Mater. Solar Cells* **69**, 381-388 (2001).
157. Investigation of the Nonstoichiometric Tungsten Oxide Nanoparticles, G.L. Frey, A. Rothschild, J. Sloan, R. Rosenstveig, R. Popovitz-Biro and R. Tenne, *J. Sol. State Chem.*, **162**, 300-314 (2001).
158. Experimental Evidence of Surface Modes Coupling in Anisotropic Hollow Nanoparticles, M. Kociak, O. Stephan, L. Henrard, V. Charbois, A. Rothschild, R. Tenne, and C. Colliex, *Phys. Rev. Lett* **87**, 075501-1-4 (2001).
159. The Effect of a Substrate's Topography on the Local Electronic Structure of WS₂ Nanotubes, O. Tal, M. Remskar, R. Tenne, and G. Haase, *Chem. Phys. Lett.* **344**, 434-440 (2001).
160. Load Bearing Capacity of Bronze, Iron and Iron-Nickel Powder Composites Containing Fullerene-Like WS₂ Nanoparticles, L. Rapoport, V. Leshchinsky, M. Lvovsky, I. Lapsker, Yu Volovik, and R. Tenne, *Tribology Intl.* **35**, 47-53 (2002).
161. The Inverted p-Diamond/n-CdTe Heterojunction Solar Cell, P. von Huth, J.E. Butler, W. Jaegermann, and R. Tenne, *J. Electrochem. Soc.* **149**, G55-G62 (2002).
162. WS₂ Nanotube Bundles and Foils, R. Rosentsveig, A. Margolin, Y. Feldman, R. Popovitz-Biro and R. Tenne, *Chem. Mater.* **14**, 471-473 (2002).
163. Alkali Metal Intercalation of Fullerene-Like MS₂ (M=W,Mo) Nanoparticles and their Properties, A. Zak, Y. Feldman, H. Cohen, V. Lyakhovitskaya, G. Leituss, R. Popovitz-Biro, S. Reich, and R. Tenne, *J. Am. Chem. Soc.* **124**, 4747-4758 (2002).
164. Stability of Metal Chalcogenide Nanotubes, G. Seifert, Th. Köhler, and R. Tenne, *J. Phys. Chem. B* **106**, 2497-2501 (2002).
165. Friction and Wear of Powdered Composites Impregnated with WS₂ Inorganic Fullerene-Like Nanoparticles, L. Rapoport, V. Leshchinsky, M. Lvovsky, O. Nepomnyashchy, Yu Volovik, and R. Tenne, *Wear* **252**, 518-527 (2002).
166. Equilibrium Structure of Multilayer van der Waals Films and Nanotubes, M. I. Mendeleev and D. J. Srolovitz. S.A. Safran and R. Tenne, *Phys. Rev. B*, **65**, 075402-075414 (2002).
167. Self-Lubricating Bearing Composites Impregnated with WS₂ Fullerene-Like Nanoparticles, V. Leshchinsky, E. Alyoshina, M. Lvovsky, Y. Volovik, R. Tenne, and L. Rapoport, *Int. J. Powder Metallurgy*, **38**, 50-57 (2002).
168. Synthesis of NbS₂ Nanoparticles with (Nested) Fullerene-Like Structure (IF), C. Schuffenhauer, R. Popovitz-Biro, and R. Tenne, *J. Mater. Chem.* **12**, 1587-1591 (2002).
169. Scanning Tunneling Microscopy Study of WS₂ Nanotubes, L. Scheffer, R. Rosentsveig, A. Margolin, R. Popovitz-Biro, G. Seifert, S.R. Cohen and R. Tenne, *PhysChemChemPhys*, **4**, 2095-2098 (2002).
170. Vapor-Liquid-Solid (VLS) Growth of NiCl₂ Nanotubes via Reactive Gas Laser Ablation, Y. Rosenfeld Hacoen, R. Popovitz-Biro, E. Grunbaum, Y. Prior, and R. Tenne, *Adv. Mater.* **14**, 1075-1078 (2002).
171. Raman Scattering from the Peroxide Ion in Cs₂O₂, T. Livneh, A. Band and R. Tenne, *J. Raman Spect.*, **33**, 675-676 (2002).
172. Mechanisms of Ultra-Low Friction by Hollow Inorganic Fullerene-like MoS₂ Nanoparticles, L. Cizaire, B. Vacher, T. Le-Mogne, J.M. Martin, L. Rapoport, A. Margolin, and R. Tenne, *Surf. & Coat. Tech.* **160**, 282-287 (2002).
173. Wear and Friction of Ni-P Electroless Composite Coating Including Inorganic Fullerene-Like WS₂ Nanoparticles, W. X. Chen, Z. D. Xu, R. Tenne, R. Rosenstveig, W. L. Chen, H. Y. Gan, J. P. Tu, *Adv. Eng. Mater.* **4**, 686-690 (2002).
174. Preparation and Tribological Properties of Ni-P Electroless Composite Coating Containing Inorganic Fullerene-Like WS₂ Nanomaterials, W.X. Chen, Z.D. Xu, J.P. Tu, W.L. Chen, J.G. Wang, D.H. Cheng, J.B. Xia, H.Y. Gan, Y.X. Jin, X.C. Ma, R. Tenne and R. Rosentsveig, *Acta Chemica Sinica* (in Chinese) **60**, 1722-1726 (2002).
175. Mechanism of Friction of Fullerenes, L. Rapoport, V. Leshchinsky, M. Lvovsky, O. Nepomnyashchy, Y. Volovik, and R. Tenne, *Ind. Lubr. Tribol.* **54**, 171-176 (2002).
176. Modification of Contact Surfaces by Fullerene-like Solid Lubricant Nanoparticles, L. Rapoport, V. Leshchinsky, Yu. Volovik, M. Lvovsky, O. Nepomnyashchy, Y. Feldman, R. Popovith-Biro, and R. Tenne, *Surf. & Coat. Tech.* **163-164**, 405-412 (2003).
177. Characterization of Nested Hollow Inorganic Fullerene-like Tungsten Disulfide Nanoparticles Prepared by Solid-Gas Reaction, W.X. Chen, Z.D. XU, J. P. Tu, R. Rosenstveig, R. Tenne, *Chinese Chem. Lett.* **14**, 312 (2003).
178. Shock-wave resistance of WS₂ nanotubes, Y.Q. Zhu, T. Sekine, K.S. Brigatti, S. Firth, R. Tenne, R. Rosentsveig, H.W. Kroto, and D.R.M. Walton, *J. Am. Chem. Soc* **125**, 1329-1333 (2003).
179. Tribological Properties of WS₂ Nanoparticles under Mixed Lubrication, L. Rapoport, V. Leshchinsky, I. Lapsker, Yu Volovik, M. Lvovsky, R. Popovitz-Biro, Y. Feldman and R. Tenne, *Wear* **255**, 785-793 (2003).
180. Superior Tribological Properties of Powder Materials with Solid Lubricant Nanoparticles, L. Rapoport, V. Leshchinsky, M. Lvovsky, I. Lapsker, Yu Volovik, Y. Feldman, R. Popovitz-Biro, and R. Tenne, *Wear* **255**, 794-800 (2003).

- 181.** Synthesis of NiCl₂ Nanotubes and Fullerene-Like Structures by Laser Ablation, Y. Rosenfeld Hacothen, R. Popovitz-Biro, Yehiam Prior, S. Gemming, G. Seifert, and R. Tenne, *Phys.Chem.Chem.Phys.* **5**, 1644-1651 (2003).
- 182.** CdI₂ Nanoparticles with Closed-Cage (Fullerene-Like) Structures, R. Popovitz-Biro, N. Sallacan, and R. Tenne, *J. Mater. Chem.* **13**, 1631-1634 (2003).
- 183.** Use of Functionalized WS₂ Nanotubes to Produce New Polystyrene/Polymethylmethacrylate Nanocomposites, W. Zhang, S. Ge, Y. Wang, M.H. Rafailovich, O. Dhez, D.A. Winesett, H. Ade, Kurikka V.P.M. Shafi, A. Ulman, R. Popovitz-Biro, R. Tenne, J. Sokolov, *Polymer* **44**, 2109-2115 (2003).
- 184.** Evidences for Dry Deintercalation in Layered Compounds upon Controlled Surface Charging in X-Ray Photoelectron Spectroscopy, Y. Feldman, A. Zak, R. Tenne and H. Cohen, *J. Vac. Sci. Tech. A* **21**, 1752-1758 (2003).
- 185.** Synthesis of SnS₂/SnS Fullerene-Like Nanoparticles: a Superlattice with Polyhedral Shape, S.Y. Hong, R. Popovitz-Biro, Y. Prior, R. Tenne, *J. Am. Chem. Soc.* **125**, 10470-10474 (2003).
- 186.** Nanoparticles of CdI₂ with Closed Cage Structures Obtained via Electron Beam Irradiation, N. Sallacan, R. Popovitz-Biro, and R. Tenne, *Solid State Sci.* **5**, 905-908 (2003).
- 187.** Mechanical Behavior of Individual WS₂ Nanotubes, I. Kaplan-Ashiri, S.R. Cohen, K. Gartsman, R. Rosentsveig, G. Seifert, and R. Tenne, *J. Mater. Res.* **19**, 454-459 (2004).
- 188.** Polymer Nanocomposites with Fullerene-Like Solid Lubricant, L. Rapoport, O. Nepomnyashchy, R. Popovitz-Biro, Yu Volovik, B. Ittah, and R. Tenne, *Adv. Eng. Mater.* **6**, 44-48 (2004).
- 189.** The Effect of WS₂ Nanoparticles on Friction Reduction in Various Lubrication Regimes., R. Greenberg, G. Halperin, I. Etsion, and R. Tenne, *Tribology Lett.* **17**, 179-186 (2004).
- 190.** Study of the Growth Mechanism of WS₂ Nanotubes Produced by the Fluidized Bed Reactor, A. Margolin, R. Rosentsveig, A. Albu-Yaron, R. Popovitz-Biro and R. Tenne, *J. Mater. Chem.* **14**, 617-624 (2004).
- 191.** Nanoparticles Produced by Laser Ablation of HfS₃ in Liquid Medium: Inorganic Fullerene-Like Structures of Hf₂S, M. Nath, C.N.R. Rao, R. Popovitz-Biro, A. Albu-Yaron, and R. Tenne, *Chem. Mater.* **16**, 2238-2243 (2004).
- 192.** How Stable are Inorganic Fullerene-Like Particles?—Thermal Analysis (STA) of Inorganic Fullerene-Like NbS₂, MoS₂, and WS₂ in Oxidizing and Inert Atmosphere in Comparison with the Bulk Material, C. Schuffenhauer, G. Wildermuth, J. Felsche, and R. Tenne, *PhysChemChemPhys* **6**, 3991-4002 (2004).
- 193.** Behavior of Solid Lubricant Nanoparticles under Compression, V. Leshchinsky, R. Popovitz-Biro, K. Gartsman, A. Verdyan, Yu. Rosenberg, R. Tenne, L. Rapoport, *J. Mater. Sci.* **39**, 4119-4129 (2004).
- 194.** Characterization of Oxides of Cesium, A. Band, A. Albu-Yaron, T. Livneh, H. Cohen, Y. Feldman, L. Shimon, R. Popovitz-Biro, V. Lyahovitskaya, and R. Tenne, *J. Phys. Chem. B* **108**, 12360-12367 (2004).
- 195.** Electron Microscopy, Spectroscopy and First Principles Calculations of Cs₂O, S. Gemming, G. Seifert, C. Mühle, M. Jansen, A. Albu-Yaron, T. Arad, and R. Tenne, *J. Solid State Chem* **178**, 1190-1196 (2005).
- 196.** Friction and Wear of Fullerene-Like WS₂ under Severe Contact Conditions: Friction of Ceramic Materials, L. Rapoport, O. Nepomnyashchy, I. Lapsker, A. Verdyan, Y. Soifer, R. Popovitz-Biro and R. Tenne, *Tribol. Lett.* **19**, 143-149 (2005).
- 197.** Preparation and structural characterization of stable Cs₂O closed-cage structures, A. Albu-Yaron, T. Arad, R. Popovitz-Biro, M. Bar-Sadan, Yehiam Prior, M. Jansen and R. Tenne, *Angew. Chem. Intl. Ed.* **44**, 4169-4172 (2005).
- 198.** Fullerene-Like Nanoparticles of Titanium Disulfide, A. Margolin, R. Popovitz-Biro, A. Albu-Yaron, A. Moshkovith, L. Rapoport, and R. Tenne, *Current Nanoscience* **1**, 253-262 (2005).
- 199.** Inorganic Fullerene-Like Nanoparticles of TiS₂, A. Margolin, R. Popovitz-Biro, A. Albu-Yaron, L. Rapoport, and R. Tenne *Chem. Phys. Lett.* **411**, 162-166 (2005).
- 200.** Behavior of Fullerene-Like WS₂ Nanoparticles Under Severe Contact Conditions, L. Rapoport, O. Nepomnyashchy, I. Lapsker, A. Verdyan, A. Moshkovith, Y. Feldman, R. Tenne, *Wear* **259** 703-707 (2005).
- 201.** Synthesis of Fullerene-Like Tantalum Disulfide Nanoparticles by Gas Phase Reaction and Laser Ablation, C. Schuffenhauer, B.A. Parkinson, N.Y. Jin-Phillip, M. Rühle, L. Joly-Pottuz, J.-M. Martin, R. Popovitz-Biro, and R. Tenne, *Small* **1**, 1100-1109 (2005).
- 202.** Nanowire Acting as a Superconducting Quantum Interference Device, A. Johansson, G. Sambandamurthy, D. Shahar, N.-L. Jacobson, and R. Tenne, *Phys. Rev. Lett.* **95**, No. 116805 (2005).
- 203.** Inorganic fullerene-like nanoparticles of TiS₂, A. Margolin, R. Popovitz-Biro, A. Albu-Yaron, A. Moshkovith, L. Rapoport, and R. Tenne, *Chem. Phys. Lett.* **411**, 162-166 (2005).
- 204.** Orientation Dependence of the Polarizability of an Individual WS₂ Nanotube by Resonant Raman Spectroscopy, P.M. Rafailov, C. Thomsen, K. Gartsman, I. Kaplan-Ashiri, and R. Tenne, *Phys. Rev. B* **72**, No. 205436 (2005).
- 205.** Shock-Absorbing and Failure Mechanism of WS₂ and MoS₂ Nanoparticles with Fullerene-Like Structure Under Shockwave Pressures, Y.Q. Zhu, T. Sekine, Y.H. Li, M.W. Fay, Y.M. Zhao, C.H. Patrick Poa, W.X. Wang, R. Martin, P.D. Brown, N. Fleischer, and R. Tenne, *J. Am. Chem. Soc.*, **127** 16263-16272 (2005).

- 206.** WS₂ and MoS₂ Inorganic Fullerenes: Super Shock Absorber at Very High Pressures, Y.Q. Zhu, T. Sekine, Y. H. Li, M. Fay, W. X. Wang, H. Edwards, P.D. Brown, N. Fleischer and R. Tenne, *Adv. Mater.*, **17**, 1500-1503 (2005). See also, Composites in Armor, P.J. Hogg, *Science (Perspective Sec.)* **314**, 1100 (2006).
- 207.** On the Mechanical behavior of WS₂ Nanotubes under Axial Tension and Compression, I. Kaplan-Ashiri, S.R. Cohen, K. Gartsman, V. Ivanovskaya, T. Heine, G. Seifert, I. Wiesel, H.D. Wagner and R. Tenne, *Proc. Natl. Acad. Sci.* **103**, 523-528 (2006).
- 208.** Dynamics of Bulk vs. Nanoscale WS₂: Local Strain and Charging Effects, R.D. Luttrell, S. Brown, J. Cao, J.L. Musfeldt, R. Rosentsveig, and R. Tenne, *Phys. Rev. B* **73**, No. 035410 (2006).
- 209.** Nuclear Magnetic Resonance Study of Fullerene-Like WS₂, A. M. Panich, F. Kopnov, and R. Tenne, *J. Nanosci. Nanotech.* **6**, 1678-1683 (2006).
- 210.** Self-Lubricating Coatings Containing Fullerene-Like WS₂ Nanoparticles for Orthodontic Wires and Other Possible Medical Applications, A. Katz, M. Redlich, L. Rapoport, H.D. Wagner, and R. Tenne, *Tribol. Lett.* **21**, 135-139 (2006).
- 211.** Transport Properties of Fullerene-Like WS₂ Nanoparticles, F. Kopnov, A. Yoffe, G. Leitius, and R. Tenne, *Phys. Stat. Solidi B* **243**, 1229-1240 (2006).
- 212.** A New Way to Feed Nanoparticles to Friction Interfaces, V. Perfiliev, A. Moshkovith, A. Verdyan, R. Tenne, and L. Rapoport, *Tribol. Lett.* **21**, 89-93 (2006).
- 213.** A Simple Hydrothermal Method for the Growth of Bi₂Se₃ Nanorods J. R. Ota, P. Roy, S.K. Srivastava, R. Popovitz-Biro, and R. Tenne, *Nanotechnology*, **17** 1700-1705 (2006).
- 214.** Observation of Current Reversal in the Scanning Tunneling Spectra of Fullerene-Like WS₂ Nanoparticles, D. Azulay, F. Kopnov, R. Tenne, I. Balberg and O. Millo, *NanoLett.* **6**, 760-764 (2006).
- 215.** Closed-Cage (Fullerene-Like) Structures of NiBr₂, M. Bar-Sadan, R. Popovitz-Biro, Yehiam Prior and R. Tenne, *Mater. Res. Bull.* **41**, 2137-2146 (2006).
- 216.** Synthesis of Fullerene-Like Cs₂O Nanoparticles by Concentrated Sunlight, A. Albu-Yaron, T. Arad, R. Tenne, M. Levy, R. Popovitz-Biro, J.M. Gordon, D. Feuermann, E.A. Katz, M. Jansen and C. Mühle, *Adv. Mater.* **18**, 2993- 2996 (2006).
- 217.** MoS₂ Fullerene-Like Nanoparticles and Nanotubes Using Gas Phase Reaction with MoCl₅, F.L. Deepak, A. Margolin, M. Bar-Sadan, R. Popovitz-Biro and R. Tenne, *Nano* **1**, 167-180 (2006).
- 218.** Structure and Stability of Molybdenum Sulfide Fullerenes, M. Bar-Sadan, A.N. Enyashin, S. Gemming, R. Popovitz-Biro, S.Y. Hong, Yehiam Prior, G. Seifert and R. Tenne, *J. Phys. Chem. B* **110**, 25399-25410 (2006).
- 219.** Sedimentation of IF-WS₂ Aggregates and a Reproducibility of the Tribological Data, A. Moshkovith, V. Perfiliev, A. Verdyan, R. Popovitz-Biro, R. Tenne, L. Rapoport, *Tribol. Intl.* **40**, 117-124 (2007).
- 220.** Structure and Stability of Molybdenum Sulfide Fullerenes, A.N. Enyashin, S. Gemming, M. Bar-Sadan, R. Popovitz-Biro, S.Y. Hong, Y. Prior, R. Tenne, and G. Seifert, *Angew. Chem. Intl. Ed.* **46**, 623-627 (2007). See also highlight by *Chem. & Eng. News*, 22.1.07 issue, **5**, **36** (2007).
- 221.** Fabrication of Self-Lubricating Cobalt Coatings on Metal Surfaces, H. Friedman, O. Eidelman, Y. Feldman, A. Moshkovith, V. Perfiliev, L. Rapoport, A. Yoffe and R. Tenne, *Nanotechnol.* **18**, 115703 (2007).
- 222.** Microscopic Investigation of Shear in Multiwalled Nanotube Deformation, I. Kaplan-Ashiri, S.R. Cohen, Y. Wang, G. Seifert, H.D. Wagner, and R. Tenne, *J. Phys. Chem. C*, **111**, 8432-8436 (2007).
- 223.** Characterization of Geoinspired and Synthetic Chrysotile Nanotubes by Atomic Force Microscopy and Transmission Electron Microscopy, S. Piperno, I. Kaplan-Ashiri, S.R. Cohen, R. Popovitz-Biro, D.H. Wagner, R. Tenne, E. Foresti, I.G. Lesci, and N. Roveri, *Adv. Funct. Mater.*, **17**, 3332-3338 (2007).
- 224.** Bulk vs. Nanoscale WS₂: Finite Size Effects and Solid State Lubrication, S. Brown, J.L. Musfeldt, I. Mihut, J.B. Betts, A. Migliori, A. Zak, and R. Tenne, *NanoLett.* **7**, 2365-2369 (2007).
- 225.** On the Efficacy of IF-WS₂ Nanoparticles as Solid Lubricant: The Effect of the Loading Scheme, L. Rapoport, A. Moshkovith, V. Perfiliev, and R. Tenne, *Tribol. Lett.* **28**, 81-87 (2007).
- 226.** Fullerene-Like (IF) Nb_xMo_{1-x}S₂ Nanoparticles, F.L. Deepak, H. Cohen, S.R. Cohen, Y. Feldman, R. Popovitz-Biro, D. Azulay, O. Millo, and R. Tenne, *J. Am. Chem. Soc.* **129**, 12549-12562 (2007).
- 227.** Singular MoS₂, SiO₂ and Si Nanostructures- Synthesis by Solar Ablation, J.M. Gordon, E.A. Katz, D. Feuermann, A. Albu-Yaron, M. Levy and R. Tenne, *J. Mater. Chem.* **18**, 458-462 (2008).
- 228.** Fullerene-Like (IF) WS₂ Nanoparticles and Nanotubes by the Vapor-Phase Synthesis of WCl_n and H₂S, A. Margolin, F. L. Deepak, R. Popovitz-Biro, M. Bar-Sadan, Y. Feldman, and R. Tenne, *Nanotechnol.* **19**, 095601 (2008).
- 229.** Toward Atomic-scale Bright-field Electron Tomography for the Study of Fullerene-Like Nanostructures, M. Bar Sadan, L. Houben, S.G. Wolf, A. Enyashin, G. Seifert, R. Tenne, and K. Urban, *NanoLett.*, **8**, 891-896 (2008). See also Highlight by *Nature Mater.* **7**, 169 (2008).
- 230.** Intercalation of Alkali Metal in WS₂ Nanoparticles, revisited, F. Kopnov, Y. Feldman, R. Popovitz-Biro, A. Vilan, H. Cohen, A. Zak and R. Tenne, *Chem. Mater.* **20**, 4099-4105 (2008).

231. Improved Orthodontic Stainless Steel Wires Coated with Inorganic Fullerene-Like Nanoparticles of WS₂ Impregnated in Electroless Nickel-Phosphorous Film, M. Redlich, A. Katz, L. Rapoport, HD. Wagner, Y. Feldman and R. Tenne, *Dental Mater.* **24**, 1640-1646 (2008).
232. X-Ray Photoelectron Spectroscopy and Tribological Studies of Annealed Fullerene-Like WS₂ Nanoparticles, B. Späth, F. Kopnov, H. Cohen, A. Zak, A. Moshkovith, L. Rapoport, W. Jeagermann and R. Tenne, *Phys. Stat. Solid. B* **245**, 1779-1784 (2008).
233. In Situ TEM Measurements of the Mechanical Properties and Behavior of WS₂ Nanotubes, M.S. Wang, I. Kaplan-Ashiri, X.L. Wei, R. Rosentsveig, H.D. Wagner, S.R. Cohen, R. Tenne, and L.-M. Peng, *Nano Res.* **1**, 22-31 (2008).
234. Atom by Atom: HRTEM Insights into Inorganic Nanotubes and Fullerene-Like Structures, M. Bar-Sadan, L. Houben, A. Enyashin, G. Seifert, and R.Tenne, *Proc. Natl. Acad. Sci* **105**, 15643-15648 (2008); Feature article & Cover page.
235. Reactive and Non-Reactive Interactions of Thiophene with WS₂ Fullerene-Like Nanoparticles: an Ultra-High Vacuum Surface Chemistry Study, J. Goering, U. Burghaus, B.W. Bruce, O. Eidelman, A. Zak, R. Tenne, *Catal. Lett.* **125**, 236-242 (2008).
236. Friction Reduction and Wear Resistance of Electro-Co-deposited Inorganic Fullerene-like WS₂ Coating for Improved Orthodontic Stainless Steel Wires, M. Redlich, A. Gorodnev, Y. Feldman, I. Kaplan-Ashiri, R. Tenne, N. Fleischer, M. Genut and N. Feuerstein, *J. Mater. Res.* **23**, 2909-2915 (2008).
237. ZnO Nanowire and WS₂ Nanotube Electronics, H.E. Unalan, Y. Yang, Y. Zhang, P. Hiralal, D. Kuo, S. Dalal, T. Butler, S.N. Cha, J.E. Jang, K. Chremmou, G. Lentaris, D. Wei, R. Rosentsveig, K. Suzuki, H. Matsumoto, M. Minagawa, Y. Hayashi, M. Chhwoalla, A. Tanioka, W.I. Milne, R. Tenne, and G.A.J. Amarungana, *IEEE Trans. Elect. Dev.* **55**, 2988-3000 (2008).
238. Torsional Stick-Slip Behavior in WS₂ Nanotubes, K.S. Nagapriya, O. Goldbart, I. Kaplan-Ashiri, G. Seifert, R. Tenne, and E. Joselevich, *Phys. Rev. Lett.* **101**, 195501 (2008).
239. Core-Shell PbI₂@WS₂ Nanotubes from Capillary Wetting, R. Kreizman, S.-Y. Hong, J. Sloan, R. Popovitz-Biro, A. Albu-Yaron, G. Tobias, B. Ballesteros, B.G. Davis, M.L.H. Green, and R. Tenne, *Angew. Chem. Intl. Ed.* **48**, 1230-1233 (2009). Highlight of the issue. Among most accessed articles 08-09 of the journal http://www3.interscience.wiley.com/journal/26737/home/2002_mostaccessed_all.html.
240. Toughening of Epoxy Adhesives by Nanoparticles, A. Buchman, H. Dodiuk-Kenig, A. Dotan, R. Tenne and S.Kenig, *J. Adhesion Sci. Tech.* **23**, 753-768 (2009).
241. Synthesis of Fullerene-Like MoS₂ Nanoparticles and Their Tribological Behavior, R. Rosentsveig, A. Margolin, A. Gorodnev, R. Popovitz-Biro, Y. Feldman, L. Rapoport, G.R. Samorodnitzky-Naveh, and R. Tenne, *J. Mater. Chem.* **19**, 4368-4374 (2009).
242. Insight into the Growth Mechanism of WS₂ Nanotubes in the Scaled-Up Fluidized Bed Reactor, A. Zak, L. Sallacan-Ecker, A. Margolin, M. Genut and R. Tenne, *Nano* **4**, 91-98 (2009).
243. Synthesis of WS₂ and MoS₂ Fullerene-Like Nanoparticles from Solid Precursors, I. Wiesel, H. Arbel, A. Albu-Yaron, R. Popovitz-Biro, J.M. Gordon, D. Feuermann and R. Tenne, *Nano Res.* **2**, 416-424 (2009).
244. Fullerene-Like MoS₂ Nanoparticles and Their Tribological Behavior, R. Rosentsveig, R. Tenne, A. Gorodnev, N. Feuerstein, H. Friedman, N. Fleischer, J. Tannous and F. Dassenoy, *Tribology Lett.* **36**, 175-182 (2009).
245. A Magnetic Resonance Study of MoS₂ Fullerene-Like Nanoparticles, A. M. Panich, A. I. Shames, R. Rosentsveig, R. Tenne, *J. Phys. Cond. Matt.* **21**, 395301 (2009).
246. The Effect of Tungsten Sulfide Fullerene-Like Nanoparticles on the Toughness of Epoxy Adhesives, M. Shneider, H. Dodiuk, S. Kenig and R. Tenne, *J. Adhesion Sci. Technol.* **24**, 1083-1095 (2010).
247. Surface Functionalization of WS₂ Fullerene-Like Nanoparticles, C. Shahar, D. Zbaida, L. Rapoport, H. Cohen, T. Bendikov, J. Tannous, F. Dassenoy, and R. Tenne, *Langmuir* **26**, 4409-4414 (2010).
248. Gold Nanoparticles as Surface Defect Probes for WS₂ Nanostructures, C. Shahar, R. Levi, S.R. Cohen and R. Tenne, *J. Phys. Chem. Lett.* **1**, 540-543 (2010).
249. Synthesis and Characterization of WS₂ Inorganic Nanotubes with Encapsulated/Intercalated CsI, S.Y. Hong, R. Popovitz-Biro, G. Tobias, B. Ballesteros, B.G. Davis, M.L.H. Green, and R. Tenne, *Nano Research* **3**, 170-173 (2010).
250. Towards Medical Applications of Self-Lubricating Coatings with Fullerene-Like (IF) WS₂ Nanoparticles, G. Naveh M. Redlich, A. Katz, , A.R. Adini, A. Gorodnev, L. Rapoport, A. Moshkovith, S.R. Cohen, R. Rosentsveig, J. Moshonov, B. Shay, and R. Tenne, *J. Nano Biomater.* **3**, 140-152 (2010).
251. Synthesis of Core-Shell Inorganic Nanotubes, R. Kreizman, A.N. Enyashin, F.L. Deepak, A. Albu-Yaron, R. Popovitz-Biro, G. Seifert and R. Tenne, *Adv. Funct. Mater.* **20**, 2459-2468 (2010). See highlight in *ACS Nano* **4**, 5517 (2010).
252. The Effect of Tungsten Sulfide Fullerene-Like Nanoparticles on the Toughness of Epoxy Adhesives, M. Shneider, H. Dodiuk, S. Kenig, R. Tenne, *J. Adh. Sci. Tech.* **24**, 1083-1095 (2010).

- 253.** Hollow V_2O_5 Nanoparticles (Fullerene-Like Analogues) Prepared by Pulsed Laser Ablation, R. Levi, M. Bar-Sadan, A. Albu-Yaron, R. Popovitz-Biro, L. Houben, C. Shahar, A. Enyashin, G. Seifert, Yehiam Prior and R. Tenne, *J. Am. Chem. Soc.* **132**, 11214-11222 (2010).
- 254.** Nanocompression of individual multilayered polyhedral nanoparticles, O. Tevet, O. Goldbart, D.H. Wagner, S.R. Cohen, R. Rosentsveig, R. Popovitz-Biro and R. Tenne, *Nanotechnology* **21** 365705 (2010).
- 255.** MoS_2 Hybrid Nanostructures: From Octahedral to Quasi-Spherical Shells Within Individual Nanoparticles, A. Albu-Yaron, M. Levy, R. Tenne*, R. Popovitz-Biro, M. Weidenbach, M. Bar-Sadan, L. Houben, A.N. Enyashin, G. Seifert, D. Feuermann, E.A. Katz and J.M. Gordon*, *Angew. Chem. Intl. Ed.* **50**, 1810-1814 (2011)
- 256.** Biocompatible Inorganic Fullerene-Like Molybdenum Disulfide Nanoparticles Produced by Pulsed Laser Ablation in Water, H. Wu, R. Yang, B. Song, Q. Han, J. Li, Y. Zhang, Y. Fang, R. Tenne and C. Wang, *ACS Nano* **5**, 1276-1281 (2011).
- 257.** Scaling Up of the WS_2 Nanotubes Synthesis, A. Zak, L. Sallacan-Ecker, A. Margolin, Y. Feldman, R. Popovitz-Biro, A. Albu-Yaron, M. Genut and R. Tenne, *Fullerenes, Nanotubes, and Carbon Nanostructures* **19**, 18-26 (2011).
- 258.** Alleviating Incidental and Fatigue-Related Failure of NiTi Root Canal Files by Self-Lubricating Coatings, A.R. Adini, Y. Feldman, S.R. Cohen, L. Rapoport, A. Moshkovith, M. Redlich, Y. Moshonov, B. Shay and R. Tenne, *J. Mater. Res., in press*.
- 259.** The use of Functionalized Nanoparticles as Non-Specific Compatibilizers for Polymer Blends, W. Zhang, M. Lin, A. Winesett, O. Dhez, A.L.D. Kilcoyne, H. Ade, M. Rubinstein, K.V.P.M. Shafi, A. Ulman, D. Gersappe, R. Tenne, M. Rafailovich, J. Sokolov and H. L. Frisch, *Polym. Adv. Technol.* **22** 65-71 (2011).
- 260.** Chromium-Rich Coatings with WS_2 Nanoparticles Containing Fullerene-Like Structure, O. Eidelman, H. Friedman, R. Rosentsveig, A. Moshkovith, V. Perfiliev, S.R. Cohen, Y. Feldman, L. Rapoport and R. Tenne, *Nano*, in press.

* corresponding author

Invited papers

- Fullerene-Like Nanocrystals of Tungsten Disulphide, R. Tenne, L. Margulis, and G. Hodes, *Research News in Adv. Mater.* **5**, 386-388 (1993).
- Inorganic Fullerenes, R. Tenne and L. Margulis, *The Isr. Chemist* **14**, 60 (1995).
- Growth of Crystalline WSe_2 and WS_2 Films on Amorphous Substrate by Reactive (van der Waals) Rheotaxy, T. Tsirlina, S.R. Cohen, H. Cohen, L. Sapir, M. Peisach, R. Tenne*, A. Matthaues, S. Tiefenbacher, W. Jaegermann, E.A. Ponomarev, and C. Lévy-Clément, *Solar Energy Materials and Solar Cells*, an issue in memory of Prof. M. Koltun, **44**, 457-470 (1996).
- Inorganic Fullerene-Like Materials and Nanotubes, R. Tenne, *Chem. Isr.* **1**, 5 (1999).
- Fullerene-Like Materials and Nanotubes from Inorganic Compounds with a Layered (2-D) Structure, R. Tenne, *Colloids and Surfaces* **208**, 83-92 (2002).
- Bundels and Foils of WS_2 Nanotubes, R. Rosentsveig, A. Margolin, Y. Feldman, R. Popovitz-Biro and R. Tenne, *Appl. Phys. A* **74**, 367-369 (2002).
- Inorganic Nanotubes and Fullerene-Like Materials, R. Tenne, "Concept" paper to *Eur. Chem. J.* **8**, 5296-5304 (2002).
- Advances in the Synthesis of Inorganic Nanotubes and Fullerene-Like Nanoparticles, R. Tenne, "Minireview" paper in *Angew. Chem. Intl. Ed.* **42**, 5124-5132 (2003).
- Fullerene-Like WS_2 Nanoparticles: Superior Lubricants for Harsh Conditions, L. Rapoport, N. Fleischer, and R. Tenne, *Research News, Adv. Mater.* **15**, 651-655 (2003).
- Mechanical Properties of WS_2 Nanotubes, I. Kaplan-Ashiri and R. Tenne, *Chimia*, **73**, 7-12 (2004) (in Hebrew).
- Doping Control for Nanotubes, R. Tenne, *Nature (News & Views Sec.)* **431**, 640-641 (2004).
- Mechanical Properties of WS_2 Nanotubes, I. Kaplan-Ashiri and R. Tenne and D.H. Wagner, *Sci. Am. (Isr.)*, July (2007), pp.7-8 (in Hebrew).
- Stochastic Strength of Nanotubes: An Appraisal of Available Data, A.H. Barber, I. Kaplan-Ashiri, S.R. Cohen, R. Tenne & H.D. Wagner, *Composite Sci. Tech.* **65**, 2380-2384 (2005).
- Mechanical Properties of WS_2 Nanotubes, I. Kaplan-Ashiri and R. Tenne, *J. Cluster Sci.* **18**, 549-563 (2007).
- Size Evolution of Mo-S Nanoclusters: the Phase Diagram of Nanoparticles, R. Tenne, *Struct. Chem.* (2008).
- Inorganic WS_2 Nanotubes Revealed Atom by Atom Using Ultra High Resolution Transmission Electron Microscopy, M. Bar Sadan, M. Heidelmann, L. Houben, and R. Tenne, *Appl. Phys. A* **96**, 343-348 (2009).
- Inorganic Nanoparticles with Fullerene-Like Structure and Inorganic Nanotubes: From Basic Science to Applications, R. Tenne, *India Nano Digest* (<http://www.nanodigestmag.com>) **2**, 14-17 (2010) (1st Anniversary Issue).

18. Stability Criteria of Fullerene-Like nanoparticles: Comparing V_2O_5 to Layered Metal Dichalcogenides and Dihalides, R. Levi, M. Bar-Sadan, A. Albu-Yaron, R. Popovitz-Biro, L. Houben, Y. Prior and R. Tenne, special issue of *Materials*, "Progress in Nanomaterials Preparation", Ed. G.R. Patzke **3**, 4428-4445 (2010).

Invited chapters in books

1. "Modification by Photoelectrochemistry of Surface Properties of Layered Compounds". C. Lévy-Clément and R. Tenne, in *Photoelectrochemistry and Photovoltaics of Layered Semiconductors*, Ed. A. Aruchamy, Kluwer Academic Publishers, Dordrecht (1992).
2. "Influence of Photoelectrochemical Etching on Electronic Properties of Semiconductors", *Semiconductor Micromachining, Vol.1: Fundamental Electrochemistry and Physics*, Ch. 4, Eds. S.A. Campbell and H.-J. Lewerenz, John Wiley&Sons, Ltd. (1998), pp. 139-175.
3. "Solar Energy", a chapter co-authored with I. Dostrovsky and A. Yogev, in the *Encyclopedia of Applied Physics*, Published by the American Institute of Physics and VCH, **18**, 363 (1997).
4. "Inorganic Fullerenes from 2-D Layered Compounds", *Cluster Assembled Solides*, Ed. K. Sattler, in *Materials Science Forum* Vol. 232, Trans Tech Publications Ltd (1996), pp. 275-294.
5. "Inorganic Fullerene-like Structures from 2-D Compounds", R. Tenne, M. Homyonfer and Y. Feldman, *Adv. Metal Semiconductor Clusters*, Ed. Michael A. Duncan, JAI Press, Inc., **4**, 227 (1998).
6. "New Materials for Photochemical and Photoelectrochemical Systems", in *Photochemical and Photoelectrochemical Approaches*, Vol.4, Eds. M.D. Archer and A.J. Nozik, Imperial College Press (1999).
7. "Inorganic Nanotube Materials", *Encyclopedia Mater., Sci. Tech.*, Eds. K.H.J. Buschow, R.W. Cahn, M.C. Flemings, B. Ilshner, E.J. Kramer, S. Mahajan, Subj. Ed. P. Day, Elsevier, Amsterdam, **5**, 4108-4110 (2001).
8. "Nanotubes from Inorganic Materials", R. Tenne and A. Zettl, in *Carbon Nanotubes, Topics in Appl. Phys.*, **80**, 81-112 (2000), Eds. M.S. Dresselhaus and P. Avouris, Springer Verlag, New York.
9. "Inorganic Nanoclusters with Fullerene-Like Structure and Nanoatubes", R. Tenne, in *Progress in Inorganic Chemistry*, Ed. Kenneth D. Karlin, John Wiley&Sons, **50**, 269-315 (2001).
10. "Inorganic Nanoparticles with Fullerene-Like Structure and Nanotubes; Some Electrochemical and Photoelectrochemical Aspects", R. Tenne, *Encyclopedia of Electrochemistry, Vol 6: Semiconductor Electrodes and Photoelectrochemistry*, Eds. Bard and Stratmann; Vol. Ed. S. Licht, Wiley-VCH, pp. 238-281 (2002).
11. "Inorganic Nanoparticles with Fullerene-Like Structure and Inorganic Nanotubes", R. Tenne and R. Popovitz-Biro, *Electron Microscopy of Nanotubes*, Ed. Z.L. Wang and C. Hui, Kluwer Academic Publishers, Boston, (2003), pp.251-271.
12. "Inorganic Fullerene-Like Structures and Inorganic Nanotubes from 2-D Layered Compounds", R. Tenne, *The Chemistry of Nanostructured Materials*, Ed. P. Yang, World Scientific Pub, Singapore (2003), pp. 147-182.
13. "Inorganic Nanotubes and Inorganic Fullerene-Like Nanomaterials", R. Tenne, *Encyclopedia of Nanoscience and Nanotechnology*, Eds. J.A. Schwarz, C. Contescu, and Dr. K. Putyera Schwartz, Marcel Dekker, pp. 1447-1455, New York (2004).
14. "Inorganic Nanotubes", C.N.R. Rao and R. Tenne, Eds. M. Terrones and H. Terrones, in *Nanotechnology of Carbon and Related Materials, Phil. Trans. R. Soc. Lond. A: Mathematical, Physical and Engineering Sciences* (The Royal Society, London), **362**, 2099-2125 (2004).
15. "Inorganic Nanotubes and Fullerene-Like Materials of Metal Dichalcogenide and Related Layered Compounds", R. Tenne, , *Nanomaterials Handbook*, Ed. Y. Gogotsi, pp. 317-338, CRC Press/Taylor&Francis, Boca Raton (2006).
16. "Inorganic Nanotubes Materials (update)", Ms. 2122, *Encyclopedia Mater., Sci. Tech.*, Eds. Buschow, M. Flemings, R. Cahn, P. Veyssièrè, E. Kramer, S. Mahajan, Amsterdam, Elsevier Ltd. Available online at: www.sciencedirect.com, doi:10.1016/B0-08-043152-6/00722-1 (2006).
17. "Inorganic nanotubes and fullerene-like nanoparticles", R. Tenne, *Bottom-up Nanofabrication: Supramolecules, Self-Assemblies, and Organized Films*, Eds. K. Ariga and H.S. Nalwa, American Scientific Publishers (www.aspbs.com), New York, **1**, 265-295, (2009).
18. "Mechanical properties of WS_2/MoS_2 nanotubes", Ifat Kaplan-Ashiri, H. Daniel Wagner and Reshef Tenne, *Encyclopedia of Nanoscience and Nanotechnology*, Eds. J.A. Schwarz, C. Contescu, and Dr. K. Putyera Schwartz, Marcel Dekker, New York, 2nd Edition pp. 1617-1626 (2009) < <http://www.informaworld.com/10.1081/E-ENN2-120042075> >.
19. "Inorganic Nanotubes and Fullerene-Like Structures", R. Tenne, M. Remskar, A. Enayshin and G. Seifert, in *Carbon Nanotubes, Topics in Appl. Phys.*, an Update, A. Jorio, G. Dresselhaus, M. S. Dresselhaus (Eds.), Springer Verlag, New York, **111**, 631-671 (2008).
20. "Inorganic Nanotubes and Fullerene-Like Structures-From Synthesis to Application", M. Bar-Sadan and R. Tenne, in *Inorganic Nanoparticles New Frontiers of Research: Synthesis, Applications and Prospectives*, C. Altevialla and E. Ciliberto, Eds., CRC Press (Taylor&Francis) (2010).

21. "Inorganic Nanotubes" (temporary title), R. Levi, M. Bar-Sadan and R. Tenne "Springer Nanomaterials Handbook, Ed. R. Vajtai, Springer Verlag, New York (2012).

Invited review articles

1. Doped and Heteroatom-Containing Fullerene-like Structures and Nanotubes, R. Tenne, *Adv. Mater.* **7**, 965-995 (1995).
2. Fullerene-like Structures and Nanotubes from Inorganic Compounds, R. Tenne, *Endeavour* 97-104 (1996).
3. Crystallization Inside Fullerene Related Structures, J. Sloan, J. Cook, M.L.H. Green, J.L. Hutchison, and R. Tenne, *J. Mater. Chem.*, **7**, 1089-1095 (1997).
4. Nanoparticles of Layered Compounds with Hollow Cage Structures (Inorganic Fullerene-Like Structures) R. Tenne, Y. Feldman, and M. Homyonfer, *Chem. Mater.*, **10**, 3225-3238 (1998).
5. Diamond Electrodes, R. Tenne and C. Lévy-Clément, *Isr. J. Chem.* issue dedicated to Diamond Films", Eds. D. Shechtman and S. Rotter, **38**, 57 (1998).
6. Inorganic Nanotubes and Fullerene-Like Materials, R. Tenne, *Science Spectra* **23**, 34-44 (2000).
7. Advances in the Synthesis of Inorganic Nanotubes and Fullerene-Like Nanoparticles, R. Tenne, *Angew. Chem. Intl. Ed.* **42**, 5124-5132 (2003).
8. Inorganic Nanotubes and Fullerene-like Nanoparticles from Layered Compounds, *Interface* (Bulletin of the Electrochemical Society), **12**, 17-18 (2003).
9. Applications of WS₂ (MoS₂) Inorganic Nanotubes and Fullerene-Like Nanoparticles for Solid Lubrication and for Structural Nanocomposites, L. Rapoport, N. Fleischer and R. Tenne, *J. Mater. Chem.* **15**, 1782-1788 (2005).
10. The Mechanical Properties of WS₂ Nanotubes, I. Kaplan-Ashiri, R. Tenne, and H.D. Wagner, *Sci. Am.* (in Hebrew, 2007).
11. Inorganic Nanotubes and Fullerene-Like Materials, R. Tenne, *Nature Nanotechnology*, **1**, 103-111 (2006); Included in a collection of review articles, *Nanoscience and Technology: A Collection of Reviews from Nature Journals*, World Scientific (2009).
12. Fullerenes Fight Friction, Giant Inorganic Molecules Give Exceptional Performance as Dry Lubricants, M. Genut, N.A. Fleischer, A. Zak, L. Rapoport and R. Tenne, ECJ, Euro. Coatings Conf., "Smart Coatings V", Berlin/Germany, May (2006).
13. Inorganic Nanotubes and Fullerene-Like Nanoparticles, R. Tenne, *J. Mater. Res.* (focused issue on "Nanotubes and Nanowires", **21**, 2726-2743 (2006).
14. Polymer-Assisted Fabrication of Nanoparticles and Nanocomposites, B.A. Rozenberg and R. Tenne, *Prog. Polymer Sci.* **33**, 40-112 (2008).
15. Inorganic Fullerenes and Nanotubes: Wealth of Materials and Morphologies in, M. Bar-Sadan, I. Kaplan-Ashiri and R. Tenne, *Eur. J. Phys.*, Special Topics: *Nanotechnology* **149**, 71-101 (2007).
16. Gas-Phase Synthesis of Inorganic Fullerene-Like Structures and Inorganic Nanotubes, F. L. Deepak and R. Tenne, *Central Eur. Chem. J.* (2008), **6**, 373-389.
17. Intercalation of Inorganic Nanotubes and Fullerene-Like Nanoparticles, F. Kopnov and R. Tenne, *Digest J. Nanomater. Biostruct.* **3**, 123-134 (2008).
18. Inorganic Nanotubes and Fullerene-Like Structures, R. Tenne and G. Seifert, *Ann. Rev. Mater. Res.* **39**, 1 (2009).
19. Recent Progress in the Research of Inorganic Fullerene-Like Nanoparticles and Inorganic Nanotubes, R. Tenne and M. Redlich, *Chem. Soc. Rev. (RSC)* **39**, 1423-1434 (2010).
20. One- and Two-Dimensional Inorganic Crystals using WS₂ Nanotubes as Template, S.Y. Hong, R. Kreizman, A. Zak, J. Sloan,¹ A.N. Enyashin, G. Seifert, M.L.H. Green, R. Tenne, Special Issue of *Eur. J. Inorg. Chem.* **27**, 4233-4243 Ed. C.N.R. Rao (2010).
21. Synthesis of Inorganic Fullerene-Like Nanostructures by Concentrated Solar and Artificial Light, M. Levy, A. Abu-Yaron, R. Tenne, D. Feuermann, E.A. Katz, D. Babai and J.M. Gordon, *Isr. J. Chem.* **50**, 417-425 (2010).
22. Medical Applications of Inorganic Fullerene-Like Nanoparticles, A. Ram, M. Redlich and R. Tenne, *J. Mater. Chem.* (2011)

Review articles

1. Stability of Cd-Chalcogenide Based Photoelectrochemical Cells, D. Cahen, G. Hodes, J. Manassen and R. Tenne, in: "Photoeffects at Semiconductor-Electrolyte Interfaces," A. Nozik, ed., *ACS Series*, **146**, 369 (1981).
2. The Importance of Solution Kinetics in Photoelectrochemical Phenomena, J. Manassen, D. Cahen, G. Hodes, R. Tenne and S. Licht, in: "Homogeneous and Heterogeneous Photocatalysis," Pelizzetti and N. Serpone, eds., Dordrecht Reidel, pp. 335-241 (1987).

Proceedings (refereed)

1. Charge Transfer Across Cd-Chalcogenide/Aqueous Polysulfide Interface Under Illumination and in the Dark. R. Tenne, Y. Mirovsky, B. Vainas, N. Müller, D. Lando, H. Flaisher, G. Hodes, D. Cahen and J. Manassen. in "Photoelectrochemistry: Fundamental Processes and Measurement Techniques," ed. W.L. Wallace, A.J. Nozik, S.K. Deb and R.H. Wilson, *Electrochem. Soc. Ser.* **83**, 172 (1982).
2. Characterization and Optimization of Polysulfide-Based Photoelectrochemical Cells Using Operational Parameters Derived by Optical and Electrochemical Methods. Y. Mirovsky, R. Tenne, J. Manassen, G. Hodes, N. Müller and D. Cahen. *Ibid.* **83**, 517 (1982).
3. Adsorption of Atomic Hydrogen on LiF Surfaces. V. Duval, M. Shapiro, Y. Zeiri and R. Tenne. *Dynamics on Surfaces*, B. Pullman *et al.* (eds.), Reidel Publishing Co. (1984).
4. Selective Electrochemical Etching of p-CuInSe₂. G. Dagan, R. Tenne, S. Endo and D. Cahen. *Ternary and Multinary Compounds*, S.K. Deb and A. Zunger, eds., Pittsburgh, Materials Research Society, pp. 133-138 (1987).
5. EBIC Studies of WSe₂ "Mixed" Surfaces. L. Margulis, D. Mahalu, E. Watkins, and R. Tenne, *Inst. Phys. Conf. Ser.* **117**, Sec.10, 767 (1991).
6. Shallow Donor States Removal by Photoelectrochemical Etching of Cd(Se,Te). R. Tenne, "Proceeding of the Symposium on Electrochemical Microfabrication", Electrochemical Society Series, Vol. 92-3, pp.164-172, Phoenix, October (1992).
7. Transmission Electron Microscopy of Nested Fullerenes and Nanotubes in Tungsten and Molybdenum Disulfides. L. Margulis, J. L. Hutchison, and R. Tenne, *8th World Ceramics Congress and Forum on New Materials*, Florence, June (1994). Published in *Advances in science and Technology*, **4**, 301 (1995).
8. Inorganic fullerenes of MX₂ (M=W,Mo;X=S,Se). R. Tenne, L. Margulis, Y. Feldman and M. Homyonfer, *Proc. of the Symposium on Fullerenes*, Materials Research Society, Fall Meeting, Boston, December (1994), Vol.359.
9. Preparation of Nested Fullerenes and Nanotubes Molybdenum Disulfide, Y. Feldman, L. Margulis, M. Homyonfer, and R. Tenne, *High Temperature Materials and Processes*, **15**,165 (1996).
10. Efficient Reduction of Nitrite and Nitrate to Ammonia Using B-Doped Diamond Electrodes, *Wide bandgap electronic materials*, C. Reuben, E. Galun, R. Tenne, R. Kalish, Y. Muraki, K. Hashimoto, A. Fujishima, J.E. Butler, and C. Lévy-Clément, NATO ASI Series, 3. High Technology, Eds. M. A. Prelas, P. Gielisse, G. Popovici, B.V. Spitsyn, and T. Stacy, **1**, 137 (1995).
11. Preparation of MoS₂ Thin Films, E.A. Ponomarev, D. Lahellec, A. Katty, M. Neumann-Spallart, G. Hodes, R. Tenne, and C. Lévy-Clément, *13th European Photovoltaic Solar Energy Conference and Exhibition*, Nice, October (1995).
12. Oriented WSe₂ Thin Films for Photovoltaic Application Prepared by van der Waals Rheotaxy, E. Galun, T. Tsirlina, H. Cohen, L. Margulis, G. Hodes, R. Tenne, A. Matthäus, S. Tiefenbacher, C. Koelzow, M. Kunst, K. Ellmer, and W. Jaegermann, *13th European Photovoltaic Solar Energy Conference and Exhibition*, Nice, October (1995).
13. Inorganic Fullerene-Like MS₂ (M=Mo,W) Structures: Synthesis, Reaction mechanism and Characterization, G.L. Frey, Y. Feldman, M. Homyonfer, V. Lakhovitskaya, G. Hodes, and R. Tenne, *11th International Winter School on Electronic Properties of Novel materials*, Kirchberg, March (1996).
14. Encapsulation and Crystallization Behavior Inside Carbon Nanotubes and Other Fullerene-Related Structures, J. Sloan, M.L.H. Green, J.L. Hutchison, and R. Tenne, *Fullerenes: Chemistry, Physics and New Directions, 19st Meeting Electrochem. Soc.*, Montreal, Canada, May (1997).
15. The Effect of Hollow Nanoparticles of WS₂ on Friction and Wear, L. Rapoport, Y. Feldman, M. Homyonfer, H. Cohen, S.R. Cohen, R. Tenne, Proc. 25th Leeds-Lyon Symp. *Tribology*, Lyon, September (1998). Published in: *Lubrication at the Frontier*, Ed. D. Dowson et al., Elsevier Science B.V. pp. 567-573 (1999).
16. Microstructure of Various MoS₂ Thin Films Prepared by Electrochemical Deposition and Annealing, Albu-Yaron, A. Katty, S. Bastide, R. Tenne and C. Levy-Clement, submitted.
17. Stability of Hollow Nanoparticles of WS₂ under Friction and Wear, L. Rapoport, Y. Feldman, H. Coehn, M. Lvovsky, Yu. Volovik, and R. Tenne, *Tribology Conf.*, Leeds (1999).
18. Nanoparticles of CdCl₂ with Closed Cage Structure, R. Popovitz-Biro, A. Twersky, Y. Rosenfeld Hachoen and R. Tenne, *Proceedings of the Kirchberg Winterschool on Electronic Properties of Novel Materials-Molecular Nanostructures* (2000), AIP Conference Proc. **544**, 441-446.
19. Mechanisms of Ultra-Low Friction by Hollow Inorganic Fullerene-Like MoS₂ Nanoparticles, L. Cizaire, B. Vacher, T. Le Monge, J.M. Martin, L. Rapoport, A. Margolin and R. Tenne, *Intl. Conf. of Metallurgical Coatings and Thin Films (ICFTC)*, San Diego, April (2002).
20. Modification of Contact Surfaces by Fullerene-Like Solid Lubricant Nanoparticles, L. Rapoport, V. Leshchinsky, Yu. Volovik, M. Lvovsky, O. Nepomnyashchy, R. Popovitz-Biro, and R. Tenne, *Intl. Conf. of Metallurgical Coatings and Thin Films (ICFTC)*, San Diego, April (2002).

21. Tribological Applications of Fullerene-Like WS₂ Nanoparticles, L. Rapoport, V. Leshchinsky, I. Lapsker*, Yu Volovik, O. Nepomnyashchy, M. Lvovsky, R. Popovitz-Biro⁺ and R. Tenne, *International Joint Tribology Conference (ASME/STLE)*, Cancun, Mexico, October (2002).
22. Attachment of Single Multiwall WS₂ Nanotubes and Single WO_{3-x} Nanowhiskers to a Probe, I. Ashiri, K. Gartsman, S.R. Cohen, R. Tenne, *Kirchberg Winterschool on Electronic Properties of Novel Materials-Molecular Nanostructures*, Kirchberg, April (2003).
23. Annealed Fullerene-Like WS₂ Nanoparticles, F. Kopnov, R. Tenne, B. Späth, W. Jägermann, H. Cohen, Y. Feldman, A. Zak, A. Moshkovith, and L. Rapoport, *NATO-ASI School on Functional Nanomaterials*, Sinaia, June (2007).
23. Mechanical Properties of Individual WS₂ Nanotubes, I. Kaplan-Ashiri, S.R. Cohen, K. Gartsman, R. Rosentsveig, V. Ivanovskaya, T. Heine, G. Seifert, H.D. Wagner, and R. Tenne, *Kirchberg Winterschool on Electronic Properties of Novel Materials-Molecular Nanostructures*, Kirchberg, April (2004).
24. Direct Tensile Tests of Individual WS₂ Nanotubes, I. Kaplan-Ashiri, S.R. Cohen, K. Gartsman, R. Rosentsveig, V. Ivanovskaya, T. Heine, G. Seifert, H.D. Wagner, and R. Tenne, *Mater. Sci. Forum.*, **475-479**, 4097-4102 (2005); *The 5th Pacific Rim Intl. Conf. Adv. Mater. Process.* Beijing, November (2004).
25. Inorganic Fullerene-Like Nanoparticles as New Lubricant Additives: a Drug Delivery Mechanism, L. Joly-Pottuz, J.M. Martin, F. Dassenoy, C. Schuffenhauer, R. Tenne, and N. Fleischer, *3rd World tribology Congress*, Washington, September (2005).
26. Micro Raman Investigation of WS₂ Nanotubes, K. Gartsman, I. Kaplan-Ashiri, R. Tenne, P. Rafailov, and C. Thomsen, *Kirchberg Winterschool on Electronic Properties of Novel Materials-Molecular Nanostructures*, Kirchberg, March (2005).
27. Electric Transport Properties and H-1 NMR Study of the Fullerene-Like WS₂ Nanoparticles, F. Kopnov, G. Leitius, A. Yoffe, I. Feldman, A.M. Panich and R. Tenne, *Phys. Stat. Solid. B*, **243**, 3290-3296 (2006).
28. X-Ray Photoelectron Spectroscopy and Tribology Studies of Annealed Fullerene-Like Nanoparticles, F. Kopnov, R. Tenne, B. Späth, W. Jägermann, H. Cohen, Y. Feldman, A. Zak, A. Moshkovith, and L. Rapoport, in the Proc. of *NATO Advanced Study Institute, Functionalized Nanoscale Materials, Devices, and Systems*, Sinaia, Romania (2007).
29. Fullerene-Like MoS₂ Nanoparticles and Their Tribological Behavior, R. Rosentsveig, A. Gorodnev, N. Feuerstein, H. Friedman, A. Zak, N. Fleischer, J. Tannous, F. Dassenoy and R. Tenne, *Proc. Vien Nano09*, Vienna, March (2009).
30. Scaling-Up of the WS₂ Nanotubes Synthesis, A. Zak, L. Sallacan-Ecker, A. Margolin, Y. Feldman, R. Popovitz-Biro, A. Albu-Yaron, M. Genut and R. Tenne, *IWFAC 2009, 9th Biennial International Workshop Fullerenes and Atomic Clusters*, St. Petersburg, July (2009).
31. Fullerene-Like MoS₂ Nanoparticles and their Tribological Behavior, R. Rosentsveig, A. Gorodnev, N. Feuerstein, H. Friedman, A. Zak, N. Fleischer, J. Tannous, F. Dassenoy and R. Tenne, *CM 2009, Proc. 6th Intl. Conf. Condition Monitoring Machinery Failure Prevention Tech.*, Dublin, June (2009).
32. Medical Applications of Self-Lubricating Coatings with Fullerene-Like (IF) WS₂ Nanoparticles, M. Redlich, A. Katz, G. Naveh, A.R. Adini, A. Gorodnev, L. Rapoport, A. Moshkovith, R. Rosentsveig and R. Tenne, *17th Intl. Workshop Tribology*, Stuttgart, January (2010).

Monograph

1. "Inorganic Nanomaterials from Nanotubes to Fullerene-Like Nanoparticles: Fundamental and Applications", by R. Tenne, World-Scientific, Singapore-NY (2012).

Submitted papers

1. Approaching superlubricity by Re doping of fullerene-like MoS₂ nanoparticles additive, L. Yadgarov, R. Rosentsveig, G. Leitius, R. Tenne*, A. Moshkovith, V. Perfilyev, L. Rapoport, R. Vasic and A. I. Frenkel.
2. Medical Applications of Inorganic Fullerene-Like Nanoparticles, A.R. Adini, M. Redlich and R. Tenne
3. Large-Scale Synthesis of WS₂ Multiwall Nanotubes: Update, A. Zak, L. Sallacan Ecker, N. Fleischer and R. Tenne.
4. The Mechanical and Tribological Properties of Epoxy Nanocomposites with WS₂ Nanotubes, E. Zohar, S. Baruch, M. Shneider, H. Dodi, S. Kenig, D.H. Wagner, A. Zak, A. Moshkovith, L. Rapoport, R. Tenne.
5. The Effect of WS₂-Nanoparticles on the Performance and Breakage of Endodontic Files. An *In-vitro* Study, A.R. Adini, J. Moshonov, M. Redlich, Y. Feldman, L. Rapoport, A. Moshkovith, R. Tenne and B. Shay.
6. Friction Mechanism of Individual Multilayered Nanoparticles, O. Tevet, P. Von-Hute, R. Popovitz-Biro, R. Rosentsveig, H. D. Wagner and R. Tenne.

Major write-up articles on my work

1. Faux Fullerenes, *Scientific American*, p. 24, February (1993).
2. Inorganic Material has Structure Similar to C₆₀, *Chem. & Eng. News* 7.12.92, p. 23 (1992).
3. Fullerenes Broaden Scientists' View of Molecular Structure, *Chem. & Eng. News* 4.1.93, p. 29 (1993)
4. Carbon Nanotubes, *Physics Today*, June 1996, p. 32 (1996).
5. Hollow nanoparticles excel in lubrication, *Chem. & Eng. News* 23.6.97, p. 9 (1997)
6. Hollow Nanoparticle Lubricants, *Physics Today*, September 1997, p. 9 (1997).
7. *Physics News in 1997* an addendum to *APS News*, January 1998 issue of the American Physical Society bulletin summarizing the main achievements in physics for the year 1997, p.8 (1998).
8. Nickel Chloride Forms Cages and Nanotubes, *Chem. & Eng. News* 5.10.98, p. 41 (1998).
<http://pubs.acs.org/cgi-bin/bottomframe.cgi?7640scicon>
9. NiCl₂ Molecular Magnets Form as Fullerenes and Nanotubes, *MRS Bulletin*, December 1998, p.6.
10. Odds Are Good for Bucky Magnets, *New Scientist* 26.9.98, p. 17 (1998).
<http://www.newscientist.com/article/mg15921533.200-flying-start.html>
11. Inorganic Onions, A.P.E. York, *Chem. Britain* (now *Chem. World*), **36**, 40-41 (2000).
12. Inorganic Fullerenes, Onions, and Tubes, Andrew P.E. York, *J. Chem. Edu.*, **81**, 673-676 (2004).
<http://jchemed.chem.wisc.edu/Journal/Issues/2004/May/abs673.html>
13. Science and Technology: Pipe dreams; Nanotechnology, *The Economist (London)*, 369 (iss. 8347-25.10.03) 98.
http://www.economist.com/science/displaystory.cfm?story_id=E1_NTVVPQP
14. Inorganic Nanotubes, *Chem. & Eng. News*, The coverstory of the 29.8.05 issue, **85**, pp. 30-33 (2005).
<http://pubs.acs.org/cen/coverstory/83/8335inorganic.html>
15. Reshef Tenne named 2005 MRS Medalist for Inorganic Fullerenes, *MRS Bulletin*, **30**, 750 (2005).
16. Inorganic Nanotubes and Fullerenes, *Chemistry*, A quarterly magazine of the ACS, September (2006).
http://www.chemistry.org/portal/a/c/s/1/acdisplay.html?DOC=Chemistry/chemfa06/chem_feat_nanotubes.html
17. Tribochemistry, *Chem. & Eng. News*, 24.10.05 issue, p.56.
<http://pubs.acs.org/isubscribe/journals/cen/83/i43/html/8343sci1.html>
18. Sizing Up Nano-MoS₂ Properties, *Chem. & Eng. News*, 22.1.07 issue, **5**, 36 (2007).
<http://pubs.acs.org/isubscribe/journals/cen/85/i04/html/8504scicon.html#3>
19. Report on the MRS Fall meeting, *MRS Bulletin*, 32 (3), 273 (2007).
http://www.mrs.org/s_mrs/bin.asp?CID=8659&DID=193268&DOC=FILE.PDF&action=detail
20. Wikipedia: http://en.wikipedia.org/wiki/Reshef_Tenne; http://en.wikipedia.org/wiki/Inorganic_nanotube
21. Atomic Resolution, *Nature Materials*, **7**, 169 (2008) <http://www.nature.com/nmat/journal/v7/n3/pdf/nmat2139.pdf>
22. In "Nano Focus", C.-J. Liu, U. Burghaus, F. Besenbacher and Z.L. Wang, Eds. Preparation and Characterization of Nanomaterials for Sustainable Energy Production, *ACS Nano* **4**, 5517, 2010).
23. *Physics Today*, The Amer. Phys. Soc. monthly Bulletin, November 2010, p. 34.

Textbooks making reference to my work

1. *Inorganic Nanotubes*, Chapter in the book *Nanotubes and Nanowires*, C.N.R. Rao (2006).
2. Physics-text-book for elementary schools, Czech publishing house Fraus (2007).
3. *Micromechanism*, Grolier Online encyclopedia (www.go.grolier.com) (2003).
4. *Nanotechnology - ABC book*, Ed. Yu.D. Tretyakov, Publishing house: FIZMATLIT, Moscow (2008). ISBN: 978-5-9221-0901-7.
5. *Nanomaterials-An Introduction to Synthesis, Properties and Application*. D. Vollath, WILEY-VCH (2008), Weinheim; pp. 300-304.
6. *Nanoscience and Nanotechnology, A Collection of Reviews from Nature Journals*, World Scientific (2009).

Patents

1. Photogalvanoelectrolytic Cell, R. Tenne, E. Bergmann and J.C. Courvoisier, PCT Patent, CH-8209/78 (1978) (abandoned).
2. Surface Treatment of Semiconductors for Photovoltaic and Photoelectrochemical Applications, G. Hodes, D. Cahen, J. Manassen and R. Tenne, Israeli Patent Application 58441 (1.3.1983), U.S. Patent 4,386,142 (31.5.1983).
3. Procédé d'acquisition de données bidimensionnelles par un système d'informatique, C. Lévy-Clément, R. Tenne and M.A. Ryan, NRS/YEDA, déposé 3.7.89 No. (depot), FR-89-08-800 (abandoned).
4. Photostimulated gettering of deep bandgap impurities from semiconductors, R. Tenne. Israeli patent application 101214 (13.3.92) (abandoned).

5. Oriented Polycrystalline Thin Films of Transition Metal Chalcogenides, R. Tenne, L. Margulis and G. Hodes. Israeli patent 102440 (8.7.92); 104513 (26.1.93); European patent EP 0 580 019 B1 (filing date 7.7.93; granted on 26.5.99); US patent 5,958,358 (issued 28.9.99).
6. Method and Apparatus for Preparing Inorganic Fullerene-Like Nanoparticles of Transition Metal Chalcogenides Having Predetermined Size and Shape, R. Tenne, G. Hodes, Y. Feldman, L. Margulis, and M. Homyonfer. Israeli patent application, 118378 (22.5.96), (abandoned).
7. Method for Preparation of Metal Intercalated Fullerene-Like metal chalcogenides, M. Homyonfer, R. Tenne, and Y. Feldman, Israeli patent application (28.11.96); PCT IL/97/00390 (27.11.97), WO 97 44278 (27.11.97); WO 98/23796; US 6,217,843 B1 (17.4.01); European EP 0 948 671 B1 (20.2.02).
8. Inorganic Fullerene-Like Structures of Metal Dihalides, Y. Rosenfeld-Hacohen and R. Tenne. Yeda No. 9855 (24.9.98) (abandoned).
9. Inorganic Fullerene-Like Nanocomposites, R. Tenne, A. Rothschild, J. Sloan, A.P.E. York, M.L.H. Green, and J.L. Hutchison (10.2.99) (abandoned).
10. Bulk Synthesis of Long Nanotubes of Transition Metal Chalcogenides, A. Rothschild, M. Homyonfer and R. Tenne, Isr. Patent Appl. 129718 (2.5.99). PCT/IL00/00251 (2.5.2000); US patent 6,841,142 (11.1.05); European patent No. EP 1 177 153 B1 (10.10.07).
11. Sonoelectrochemical Synthesis of Inorganic Fullerene-Like Nanoparticles of Metal-Chalcogenides, G. Hodes, R. Tenne, M. Homyonfer, and Y. Mastai, PCT WO 01/04382 A1 (18.1.01)/IL00/000408 (12.7.2000) (abandoned).
12. Hollow Fullerene-Like Nanoparticles as Solid Lubricants in Composite Metal Matrices, R. Tenne, L. Rapoport, M. Lvovsky and Y. Feldman, IL 134892 (6.3.00); PCT WO 01/66676 A2 (13.9.01); US Patent No. 6,710,020 (allowed 21.10.03); Euro. Pat. Appl. No. 01910116.1 (allowed 26.5.06); Chin. Pat. App. No. 01805881.7 (allowed 24.4.06); Yeda Card 2000-031.
13. Inorganic Fullerene-Like Tungsten Disulfide Hollow Nanoparticles and Nanotubes (Reactors for Production of Inorganic Fullerene-Like WS₂ Hollow Nanoparticles and Nanotubes), R. Tenne, Y. Feldman, A. Zak, R. Rosentsveig. 6.3.00 IL 134891 (6.3.00); PCT WO 01/66462 A2 (13.9.01); Isr. Patent Appl. No. 151094; PCT/IL01/00211; Chinese Pt. No. ZL 01806119.2 (13.4.05); European patent EP1263682B1 granted (3.1.07); US issued 7,524,481 B2 (28.4.09).
14. A Method and Apparatus for Producing Inorganic Fullerene-Like Nanoparticles, R. Tenne, Y. Feldman, A. Zak and R. Rosentsveig. Euro. Patent No. 1 334 063 (16.4.05); PCT WO 02/034959 A3 (2.5.02); US patent No. 7,018,606 B2 28.3.06 (original); Isr. Patent Appl. 155270 (27.1.06); Japanese patent No. 537925/02 (18.8.08); US patent 7,641,869 (allowed 5.1.10) being Continuation of US 7,018,606 (allowed 28.1.09); Yeda card 2000-065.
15. Closed Cage Nanostructures of Cesium Oxide and Device Used in Handling Such Structures, R. Tenne and A. Albu-Yaron. PCT WO 2006/075317 A2, filed 11.1.06 (abandoned).
16. Superconducting Structures and use Thereof in Electronic Devices, A. Johansson, D. Shahar and R. Tenne, US provisional application No. 60/663,209 (abandoned).
17. Process and Apparatus for Producing Inorganic Fullerene-Like Nanoparticles, R. Tenne, A. Margolin, R. Popovitz-Biro and L. Rapoport, (US Patent No. 7,641,869- granted 5.1.2010). WO 2006/106517 A2 (published 12.10.06). EU appl. 06728235.0-1218- IL2006000434 (6.4.06)
18. Low Friction Coatings for Use in Dental and Medical Devices, A. Katz, M. Redlich, L. Rapoport and R. Tenne (U.S. Provisional Patent Application No. 60/681,443 filed 17.05.2005); PCT/IL2006/000578; WO 2006/123336; Yeda card 2005-023.
19. Synthesis of WS₂ and MoS₂ Fullerene-Like Nanoparticles from Solid Precursors, R. Tenne and I. Wiesel, US appl. No. 61/144,792 (filed 15.1.09- abandoned).
20. Core-Shell Inorganic Nanotubes From Layered Compounds, R. Tenne, R. Kreizman, Y.S. Hong and M.L. Deepak, U.S. Provisional Patent Application No. 61/112,795 (filed 11.08); PCT Application No. IL2009/001054 (filed 10.2.10) WO 2010/052721 A2 (14.5.2010).
21. Fullerene-Like Nanostructures, Their Use and Process for Their Production, R. Tenne, F.L. Deepak, H. Cohen, and S.R. Cohen, PCT WO 2009/034572 A1 (filed 19.3.09 priority date 10.9.07).
22. Fullerene-Like Nanostructures, Their Use and Process for Their Production, R. Tenne, R. Rosentsveig and L. Yadgarov, CIP of US IL2008/001213 (PCT WO 2009/034572 A1), submitted on 10.3.10. Originally filed as Controlled Doping of Fullerene-Like Hollow Cages Nanoparticles of MS₂ 2010/016 filed as CIP to 2007/024 (No. 21). 2.2.2010.
23. Reduced Failure of Endodontic Files by Applying Metal-Fullerene-Like WS₂, R. Tenne, A.R. Adini, Y. Feldman, M. Redlich, submitted on 21.6.10; Reg. No. 61/356,720; Yeda card 2010-057.
24. Controlled Doping of Fullerene-Like Hollow Cages Nanoparticles of MS₂ 2010/016 filed as CIP to 2007/024 (No. 21). 2.2.2010, R. Tenne, R. Rosentsveig and L. Yadgarov; Yeda card 2007-024.

25. Chromium-Cobalt Coatings with WS₂ Nanoparticles Containing Fullerene-Like Structure, R. Tenne and O. Eidelman

Reports

1. The Photo-Enhanced Water Electrolysis. R. Tenne. Battelle (Geneva) Report No. 193-8314 (1979).
2. Optimization of the Internal Resistance of Lead/Acid Cells Using a Three-Dimensional Approach. R. Tenne, G. Meda, E. Bergmann, S. Amara. Battelle Report No. 6237 (1979).

Invited/keynote and plenary talks (Conferences & meetings)

1. *Charge Transfer across Cd-Chalcogenide/Aqueous Polysulfide Interface under Illumination and in the Dark*, 160th Meeting of the Electrochemical Society, Denver, Col., USA (1981).
2. *Characterization and Optimization of Polysulfide Based Photoelectrochemical Cells Using Operational Parameters Derived by Optical and Electrochemical Methods*, 160th Meeting of the Electrochemical Society, Denver, Col., USA (1981).
3. *Improved Opto-Electronic Performance of Semiconductors by Means of (Photo) Electrochemical Etching*, International Electrochemical Society, Berkely, California, USA (1984).
4. *Passivation of Recombination Centers by (Photo) Electrochemical Etching of Semiconductor Surfaces*, Electrochemical Society Meeting, Toronto, Canada (1985).
5. *Light Induced Etching of Semiconductors*, Gordon Conference, Santa Barbara (1985). Short presentation.
6. *Low Bandgap Materials for Photovoltaic Application*, 4th Bordeaux--Weizmann Meeting: Advanced Materials, Weizmann Institute of Science, Rehovot, Israel (1986).
7. *Light Induced Etching of Semiconductors: Interplay Between Kinetics and Thermodynamics*, 53rd Meeting of the Israeli Chemical Society, Ben-Gurion University.
8. *"Photoelectrodes semi-conductrices"* (GRECO), Meeting of the French Photoelectrochemistry Group, Ecole Polytechnique Massy-Palaiseau (1988).
9. *Photoconductivity Measurements of the CdTe-ZnTe Superlattices*, H. Strikman, D. Mahalu and R. Tenne, 7th International Conference on Photochemical Conversion and Storage of Solar Energy (IPS7), Chicago (1988). Short presentation.
10. *Passivation of Recombination Centers*, 40th International Electrochemical Society Meeting, Kyoto, (1989).
11. *New Process for Optical Data Recording by Photoelectrochemical Etching* (with C. Lévy-Clément), "Biochemical, Photonic and Electronic Processes of Molecular Functional Interfaces", Tokyo (1989).
12. *Morphological and Optical Aspects of Rough Semiconductor Surfaces Produced by Photoelectrochemical Etching*, in "The Chemistry and Physics of Composite Media", Symposium the Electrochemical Society Spring Meeting, Montreal, Canada (May 1990).
13. *Passivation of Semiconductor Surfaces Using Photoelectrochemical Etching*, "Frontiers in Quantum Solar Energy Conversion", Nassfeld, Austria (1990).
14. *Passivation of Recombination Centers on Isotropic and Anisotropic Semiconductors*, 1st US-Israel Energy Conversion Forum, Shores, Israel (1990).
15. *New Optical and Electronic Properties of Surface Modified WSe₂*, Symposium on "Semiconductor Photoelectrochemistry", Electrochemical Society Meeting, Washington, USA (May 1991).
16. *Preferential Etching of Impurities from Semiconductor Surfaces*, Symposium on "Electrochemical Microfabrication", Fall Meeting of the Electrochemical Society, Phoenix, USA (October 1991).
17. *Tailoring Semiconductor Surfaces for High Photoresponse*, "Frontiers of Electrocatalysis", Sapporo, Japan (September 1991).
18. *Gettering Deep Impurities from Semiconductor Surfaces Using Resonance Excitation Photoelectrochemical Etching: Fe from Cd_{0.98}Fe_{0.02}Se*, M. Homyonfer, H.-H. Strehblow, W. Giriat, and R. Tenne, selected for the *Late News Session* of the II-VI-91 Conf., Okayama, Japan (September 1991). Published in *J. Cryst. Growth* **117**, 1080 (1992).
19. *Porous Si and Opto-electronic Material*, Annual Symposium of The Israeli Vacuum Society, Tel Aviv (January 1992).
20. *How to get Impurities In and Out of Semiconductors at Room Temperature*, Symposium on Characterization of Semiconductor Thin Film and Interfaces, Fall (182th) Meeting of the Electrochemical Society, Toronto, Canada (October 1992).
21. *Vapor deposition of oriented W(Mo)S₂ thin films*, Symposium of the Israeli Association of Crystal Growth, Rehovot (November 1992).
22. In the symposium on *Synthesis in Solid State Chemistry*, a *Symposium in honor of Aaron Wold*, ACS meeting, Denver (March 1993).

23. In the symposium 5th Workshop: Frontiers in Quantum Solar Energy Conversion, Breil/Brigels, Switzerland (March 1993).
24. *Chemical Characterization and Opto-Electronic Properties of Porous n-Type Silicon Synthesized by Photoelectrochemical Etching*. C. Lévy-Clément, A. Lagoubi, M. Neumann-Spallart, M.A. Ryan, and R. Tenne, symposium *Solar Energy Conversion*., Spring (183th) Meeting of the Electrochemical Society, Hawaii (May 1993).
25. *Layered metal dichalcogenide Semiconductors: From Single Crystals to Nanocrystallites*. Russia-Israel Binational symposium on Modern Materials, Tel-Aviv (January 1993).
26. *Nested Inorganic Fullerenes*. Isr. Chem. Soc. Meeting, Ben-Gurion University (February 1994).
27. *Giant Nested Fullerenes of Molybdenum and Tungsten Dichalcogenides*. R. Tenne et al., Electrochemical Society Fall Meeting, New Orleans (October 1993).
28. *Nested Fullerene-like Structures of MX₂*, R.Tenne, L. Margulis and G. Hodes, New Trends in Photoelectrochemistry, Tokyo, March (1994).
29. *Inorganic Fullerenes*, New England Section of the Electrochemical Society, December (1994).
30. *Inorganic Fullerenes*, Department of Physics Club, MIT, December (1994).
31. *Inorganic Fullerene-like Structures and Nanotubes of MX₂*, Symposium on Fundamental and Applied Studies of 2-D Metal Chalcogenide materials, Electrochemical Society Meeting, Chicago (1995).
32. American Chemical Society Meeting, Symposium: "Electrochemical Surface Science in the International Scene", Orlando August (1996).
33. *Inorganic fullerene-like material and nanotubes, and crystalline films on amorphous substrates*, KU-Leuven-Weizmann symposium on Surfaces and Interfaces in materials, Leuven (1996).
34. *Inorganic Fullerene-like Materials from 2-D Layered Compounds*, Euroconference: International Winter School on Fullerene and Fullerene Nanostructures, Kirchberg, March (1996).
35. *Diamond Electrochemistry*, Gordon Conference on Diamond Research, Plymouth College (New-Hampshire), August (1996).
36. *2-D Crystallization of Layered Metal Dichalcogenides on Amorphous Substrates*, in Photoeffects at Semiconductor-Liquid Interface, 211 ACS Meeting, New Orleans, March (1996).
37. *Inorganic Fullerene-like Structures and Nanotubes of MX₂ (M=W,Mo;X=S,Se)*, 1st Union of Israeli Materials Societies, Netanya, April (1996).
38. Discussion leader in 3rd *Europ. Workshop Electrochem. Processing Semiconductors*, Paris, November (1996).
39. *Semiconductor/p-type Diamond Junctions*, 192st meeting of the Electrochemical Society, Paris, September (1997) (not attended)
40. *Application of Inorganic Fullerene-like Materials as Tribological nanocomposites*, R. Tenne et al., 191st Meeting of the Electrochemical Society, Montreal, May (1997).
41. *Fundamental and Applications of Diamond Films*, Tokyo, March (1997). (not attended)
42. *Inorganic fullerene-like structures: synthesis, characterization and potential applications*, Isr. Chem. Soc. Meeting, Tel-Aviv, February (1998) *.
43. *Electrochemistry and photoelectrochemistry of inorganic fullerene-like MoS₂ (WS₂)*, 49th ISE Annual Conference, Kita Kyushu, Japan, September (1998) **.
44. *Inorganic fullerene-like materials*, Meeting of the European Network on Nanotubes, NAMITEC-NEDO, Nantes, France, October (1997).
45. *Inorganic nanotubes*, XII Intl. Winterschool, Electronic Frontier of Novel Mater., Kirchberg, Austria, March (1998).
46. *Tribological applications of inorganic fullerene-like materials*, MRS fall meeting, "5th Intl. Meeting of Dynamics in Small Confining Systems", Boston, US, December (1998).
47. *Inorganic fullerene-like materials and nanotubes*, MRS fall meeting, session on "Carbon Nanotubes, Fullerenes and Related Carbon Materials", Boston, US, December (1998).
48. *Diamond electrochemistry: a critical review*, "2nd Intl. Symp. Diamond Electrodes", Univ. Tokyo, June (1998).
49. *Fullerene-like materials and nanotubes from inorganic layered compounds*, Isr. Chem. Soc. Symp. in Honor of Wolf Prize Recipients (G. Hertel and G. Somorjai), Tel-Aviv, May (1998).
50. *Fullerene-like materials and nanotubes from inorganic layered compounds*, Slovenia-Israel meeting New Mater., Ljubljana, August (1998).
51. *Fullerene-like materials and nanotubes from inorganic layered compound***, 49th meeting Intl. Electrochem. Soc., Kitakyushu, September (1998).
52. *Fullerene-like materials and nanotubes from inorganic layered compounds: status report*, Electrochem. Ordered Interfaces, Sapporo, September (1998) **.
53. *Study of semiconductor interfaces with the Van de Graff*, Symp. for the 40th Anniversary of the Rehovot Van de Graaff, Rehovot, October (1998).

54. *Fullerene-like materials and nanotubes from inorganic layered compounds: status report*, Binational Israel-Japan Symposium on Supramolecular Materials, Jerusalem, February (1999).
55. Sixth Intl. Conf. Composite Eng., ICCE/6, July (1999) Orlando, USA (not attended).
56. 3rd Intl. Mini-Symposium Diamond Electrochem. Related Topics, June, Tokyo (1999).
57. 2nd Chemistry and Physics of Multifunctional Materials, Sant Feliu de Guixols, Spain, September, 1999.
58. Photoelectrochemistry symposium of the 196th Electrochem. Soc. Meeting, Hawaii (1999) (not attended)
59. *Nanotubes*, The 9th Israeli Materials Engineering Conference (IMEC-9), Haifa, December (1999).
60. *Inorganic fullerene-like materials and inorganic nanotubes*, 18th Annual Meeting of the Isr. Vac. Soc., Weizmann Institute, November (1999).
61. *Inorganic fullerene-like materials and inorganic nanotubes*, Kirchberg Meeting, March (2000).
62. 7th Annual Intl. Conf. on Composites Engineering, Denver, July (2000).
63. *Frontier-Science Research Conference, Science and Technology of Crystal Growth and Epitaxy*, April, La Jolla, CA (2000).
64. *Fullerene-like materials and nanotubes from inorganic layered compounds*, Isr. Chem. Soc. Symp. in Honor of Wolf Prize Recipients (F. A. Cotton), Tel-Aviv, May (2000).
65. *Fullerene-like materials and nanotubes from inorganic layered compounds*, NTS, Zichron Yaakov, May (2000).
66. *Fullerene-like materials and nanotubes from inorganic layered compounds*, 5th Fullerenes and Atomic Clusters, St. Petersburg, July (2001).
67. *Hollow nanoparticles of WS₂ as superior solid lubricant*, AGIL 2000 and Mediterranean Symp. Tribology, Jerusalem, November (2000).
68. *Inorganic fullerene-like materials and inorganic nanotubes: from synthesis to applications*, Nanotube 2001, Berlin, July (2001).
69. First International Conference on Applied Statistical Physics: Molecular Engineering (ASTAPHYS-MEX-2001)" (July 2001). (not attended)
70. *Inorganic fullerene-like materials and inorganic nanotubes from layered compounds*, Symposium on the Impact of solid state and materials chemistry on current technologies of the April ACS meeting, San-Diego (2001).
71. *Inorganic fullerene-like materials and inorganic nanotubes from layered compounds*, 35th Meeting of the Isr. Micr. Soc., Technion, May (2001).
72. *Inorganic fullerene-like materials and inorganic nanotubes from layered compounds*, EPFL-ETH-WIS-UCSB meeting, Lausanne, September (2001).
73. *Inorganic fullerene-like materials and inorganic nanotubes from layered compounds*, 2nd Japan-Israel Symposium on Supramolecular Chemistry, Osaka, October (2001).
74. *Solid state synthesis and characterization of inorganic nanotubes and inorganic fullerene-like materials*, Intl. Symp. Solid State and Mater. Chem., Indian Institute of Science, Bangalore, December (2001).
75. *Inorganic fullerene-like materials and inorganic nanotubes from layered compounds*, Workshop on Advanced Materials, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, December (2001).
76. *Inorganic fullerene-like materials and inorganic nanotubes from layered compounds*, Nanotec-01 Sussex University, September (2001)**.
77. *Applications of inorganic fullerene-like materials*, 67th Isr. Chem. Soc., Jerusalem, January (2002).
78. *Inorganic fullerene-like materials and inorganic nanotubes from basic science to applications*, Symp. Am. Comm. for the Weizmann Institute, Palm Beach, January (2002).
79. *Inorganic fullerene-like materials and inorganic nanotubes from basic science to applications*, 14th US National Congress of Applied Mechanics, Virginia Tech, June (2002).
80. *Inorganic fullerene-like structures and inorganic nanotubes, new nanomaterials for electrochemistry, photoelectrochemistry and photocatalysis*, IPS-14, Sapporo, August (2002).
81. *Inorganic fullerene-like structures and inorganic nanotubes*, VIth Intl. Symp. on Self-Propagating High-Temperature Reactions, Haifa, February (2002).
82. *Inorganic fullerene-like structures and inorganic nanotubes*, Nanoparticle Symp., 201st (Centenary) Meeting of the Electrochemical Society, Philadelphia, May (2002).
83. *Tribological behavior of inorganic fullerene-like nanoparticles*, L. Rapoport and R. Tenne, Meeting of the Isr. Soc. Mater. Processing, Ramat Efal, October (2001).
84. *Recent progress in the synthesis and characterization of nanotubes and fullerene-like nanoparticles from 2-D layered compounds*, Fullerenes and Nanotubes Symp., 201st ECS Meeting, Philadelphia (2002).
85. *Inorganic fullerene-like structures and inorganic nanotubes, new nanomaterials for electrochemistry, photoelectrochemistry and photocatalysis*, Annual Meeting of the Electrochemical Soc. (Israeli Section), Bar-Ilan University, June (2002).
86. *Inorganic fullerene-like structures and inorganic nanotubes*, Elsevier 3rd Intl. Conf. Inorganic Materials, Konstanz, September (2002).

87. *Inorganic nanotubes and fullerene-like materials from layered compounds: from concept to applications*, 7th FIGIPS Conf. on Inorganic Chemistry, Lisbon, June (2003)*.
88. *Inorganic nanotubes and fullerene-like materials from layered compounds: from concept to applications*, Gordon Research Conference, Oxford, September (2003).
89. *Inorganic nanotubes and fullerene-like materials from layered compounds: from concept to applications*, World Technology Summit 2003, New York, April (2003)*.
90. *Inorganic nanotubes and fullerene-like materials*, The Gerischer Symposium (opening session), 203rd ECS Meeting, Paris, May (2003).
91. *Inorganic nanotubes and fullerene-like materials, from concept to applications**, Inter. Mater. Congress. Cancun, Mexico, August (2003)*.
92. *Inorganic nanotubes and fullerene-like materials*, Gordon Conference, "Modern Developments in Thermodynamics", Ciocco in Castelvecchio Pascoli, Tuscany, May (2003), (not attended)
93. *Inorganic nanotubes and fullerene-like materials*, "Nanotubes-03", Seoul, Korea, July (2003).
94. *Inorganic nanotubes and fullerene-like materials*, "NanoCenter Inauguration Symp.", Hebrew University, Jerusalem, November (2003).
95. *Inorganic nanotubes and fullerene-like materials*, The 5th Pacific Rim Intl. Conf. Adv. Mater. Process, Beijing, November (2004).
96. 3rd Singapore International Chemical Conference (SICC-3), Singapore, December 2003 (not attended)
97. *Inorganic nanotubes and fullerene-like materials*, ESF Conf., "From Clever Molecules to Smart Materials Euroconference", Tomar, Portugal, September (2004).
98. *Inorganic nanotubes and fullerene-like materials*, Germany-Israel meeting on Nanochemistry, Marburg, May (2004).
99. *New inorganic nanoparticles: from concept to applications*, Day of Science of the Weizmann Institute in the UN Headquarters, New York July (2003).
100. *New inorganic nanoparticles: from concept to applications*, Discourse for the Weizmann Friends in the UK, Royal Institution of London May (2004).
101. *Inorganic nanotubes and fullerene-like materials*, Frontiers in Chemical Physics Workshop, U. of Tennessee, February (2004).
102. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, Poland-France-Israel Meeting on Spectroscopy of Modern Materials, Poznan, September (2004).
103. *Discussion leader of the Materials Section*, World Technology Summit, San Francisco, October (2004).
104. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, Sweden-Israel Forum on Applications of Nanotechnology for Water Treatment, October (2004).
105. *Inorganic nanomaterials: from concept to applications*, "Science on Sea" (Weizmann Institute Cruise), October (2004).
106. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, The 1st Intl. Conf. on One Dimensional Nanomaterials, Taipei, January (2005).
107. *Mechanical properties of inorganic nanotubes and fullerene-like materials (IF)*, Isr Chem. Soc. Meet., Tel-Aviv, February (2005).
108. *Inorganic Nanomaterials*, Europ. Ceram. Soc., Portoroz, Slovenia, June (2005). (not attended)
109. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, German-Israeli Meet. Nanotubes Nanowires, Dresden, June (2005).
111. *The use of electron microscopy in the research of inorganic nanotubes and fullerene-like material.*, XII Intl. Conf. Microscop. Solids, Kazimierz Dolny, Poland, June (2005)**.
111. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, Univ. Louis Pasteur-Weizmann Institute Meet., Strasburg, September (2005)**.
112. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, Annual meeting of the Nano-Center of Tel-Aviv University, Maagan, April (2005)**.
113. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, special seminar, Univeristy of California at Los Angeles, May (2005).
114. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, Nanowires symposium, Annual meeting, Am. Inst. Chem. Eng. (AIChE), Cincinnati, October (2005).
115. *Inorganic nanotubes and fullerene-like materials: from concept to applications*, Eco-Nano Conference, Tel-Aviv University, May (2005).
116. *New nanomaterials from concept to applications*, Symposium "Research-Training in Nanosciences and Nanotechnologies: Current Status and Future Needs", EU Headquarter, Brussels, April (2005).
117. 71st Isr. Chem. Soc. Meeting, Tel-Aviv, February (2006)*.
118. Jubilee Symposium on Nanotechnology of Bar Ilan University May (2006).
119. International Conference of Nanoscience and Technology (ICONSAT 2006), New Delhi, March (2006).

120. E-MRS, Nice, France, June (2006).
121. MRS Meeting (MRS Medal presentation), Boston, November (2005)**
122. 7th Isr. Sec. Electrochm. Soc., Bar-Ilan Univ., March (2006)*.
123. 12th Isr. Mater. Eng. Conf. (IMEC-12), March (2006)*.
124. MRS- Fall meeting, Boston, November (2006).
125. FullMat IHP network of the EU, Budapest, April (2006)*.
126. Isr. Innov. Summit, Haifa, April (2006)**.
127. Micro- to Nano-Photonics ROMOPTO Meeting, Sibiu, Romania, August (2006)*.
128. Minerva School on Biological and Bio-inspired Materials, Berlin, May (2007).
129. NATO Advanced Study Institute, Functionalized Nanoscale Materials, Devices, and Systems, Sinaia, Romania (2007).
130. IUMRS-ICAM 2007, International Conference on Advanced Materials, Bangalore, October (2007).
131. Israel-Taiwan meeting on Advanced Nanotechnologies, Jerusalem, May (2007).
132. First International Meeting on Recent Developments in the Study of Radiation Effects in Matter. Playa del Carmen, Q. Roo, México, December (2006).
133. Lectures to professors and students via Video Conferencing at the invitation of Prof. Atta-ur-Rahman, FRS Chairperson, the Higher Education Commission of Pakistan, October (2007)
134. LASERION 2007, Schloss Ringberg, Germany July (2007)
135. Israel-Germany Workshop on HRTEM, Technion City, Haifa, October (2006)
136. 4th All-Russian Kargin conference, "Polymer Science for 21st Century", Moscow, January (2007)
137. First Symposium on Transition Metal Chalcogenide Nanostructures (TMCN07), Dresden, March (2007)[#]
138. German workshop on Nanowires and Nanotubes, Fulde, June (2007)**
139. EPFL colloquium, Lausanne, October (2007)
140. 17th Symposium Cond. Matter Phys.- SFKM 2007, Serbian Physical Society, Vrsac, September (2007)[#].
141. IUPAC Workshop on Advanced Materials, Krabi, Thailand, December (2008). Conference was canceled
142. High-Accuracy Nanomechanical Research in the Nordic Countries, Helsinki University of Technology, May (2007)**
143. Ukraine-Israel binational workshop, Beer Sheva, September (2007)
144. 9th Workshop on Nanooscience and Nanotechnology, Sofia, November (2007)[#]
145. Industry-Academia Workshop on Nanotubes Applications, Technion, November (2007)[#]
146. Americas Innovation Forum (Forum Interamericano de Innovacion), Montevideo (Uruguay), April (2008).
147. FOREMOST Project semi-annual meeting, Weizmann Institute, February (2008)[#]
148. US-Airforce-MAFAT (Israel) Nanotechnology meeting, San Francisco, April (2008)
148. NanoBio Conference, NATO ARW, St. Petersburg, June (2008)
149. Legal Conference: Law meets Industry: Biosciences Patents, Haifa University, June (2008)
150. Transition Metal Chalco/ Halide Nanostructures (TMCN 2008), Portorož, Slovenia, May (2008)**
151. Society of Tribologists and Lubrication Engineers, Cleveland, OH, May (2008)
152. Molecules & Materials: New Directions, Bangalore, India, December (2008)
153. Vien-Nano 09, 3rd Vienna Intl. Conf. Nanotech, Vienna, March (2009)*
154. "1st Julius Springer Forum for App. Phys." (under the auspices of 4 Nobel Laureates) Harvard University, September (2008)
155. Israel Nano, 1st Isr. Conf. Nanosci. & Nanotech., Jerusalem, March (2009)*
156. Intl. Conf. Quantum Transport and Fluctuations Nanoscale, Montenegro, September (2008)[#]
157. 9th Intl. Fullerene Conference (IWFAC 2009), St. Petersburg, July (2009)*[#]
158. Intl. Conf. on Boundary Lubrication, Seville, April (2009)**
159. TMCN-09, Workshop on Nanostructures of Metal Chalcogenides and Metal Halides, Sicily, May (2009)
160. Israel Chemical Society 74th meeting, Tel-Aviv, February (2009)*
161. CM 2009 and MFPT 2009 (Mechanical Failure Analysis Conf.), Dublin, June (2009)**
162. NanoDam, Sabanci Univ., Turkey, June (2009)**
163. Israel-China Workshop on Tribology, Technion, June (2009)
164. BCEIA 2009, Beijing, November (2009)**
165. 17th Intl. Colloq. Tribol., Stuttgart, January (2010)
166. MRS Spring meeting, San Francisco, and Colloquium at Stanford Univ. (Materi. Sci. Eng.) April (2010)
167. Meeting of the Ambulatory Orologists, Kfar Blum, June (2009)
168. INNTO1, 1st workshop on Inorganic Nanotubes, San Sebastian, September (2009)[#]
169. CIMTEC 2010 - 12th Intl. Ceramics Cong. & 5th Forum New materials, Montecatini Term, June (2010)
170. RussNano 2nd Intl. Conference on Nanostructures, Moscow, October (2009)
171. 240th ACS National Meeting (Division of Fuel Chemistry), Boston, August (2010)**

172. NATO-ASI School on Bionanotechnology, Chisinau-Moldava, June (2010)
173. The 14th Israel Materials Engineering Conference, IMEC-14, December (2009)**
174. Colloquium at iNANO, University of Aarhus, Denmark, March 2010.
175. 7th Intl. Conf. Condition Monit. (CM2010), Stratford-upon-Avon, UK, June (2010)**
176. The 5th Intl. Conf. on Nanotech. for the Plastics Industry, Shenkar College, Ramat Gan, February (2010)#
177. Board of Governors Meeting, Ben-Gurion Univ., May (2010)*
178. ICONSAT 2010, Intl. Conf. Nano Sci. & Tech., Mumbai, February (2010)**
179. 1st European Inorganic Chemistry Conference (EICC), Manchester, April (2011)*
180. Colloquium of Materials Sci.& Eng., Stanford University, April (2010)
181. NMP (FP7 program of the EU) expert advisory group, Brussels, November (2010)
182. NMP (Nanotechnology-materials-production of FP6 and FP7) advisory board workshop, Brussels, November (2010)
183. E-MRS Symp. 11 E: From photophysics to optoelectronics of zero- and one-dimensional nanomaterials, Nice, May (2011)
184. TMCN11, Lausanne, June (2011)**
185. China Nano 2011, Beijing, September (2011)*
186. Joint workshop at Northwestern Univ of NWU, Israel and JNC-Ceneter Jakkur-India, March (2011)#
187. XIX Medeleev Congress on General and Applied Chemistry, Volgograd, September (2011)**
188. The Ruđer Bošković 300th year memorial symp., Dubrovnik, May (2011)#

* Plenary talk

** Keynote speaker

Opening session

Invited talks in conferences and international forums which had to be turned down for technical reasons

1. A Symposium of the XIV International Materials Research Congress organized by MRS-Mexico, Cancun, August (2005)
2. NanoteC05, Sussex, September (2005)
3. Session on “Molecular Materials and Nanochemistry” at the 8th FIGIPAS Meeting in Inorganic Chemistry, Athens, July (2005)
4. Gordon Research Conference on Tribology (2006), June, Colby College, Waterville, Maine
5. The 3rd IUPAC International Symposium on Macro- and Supramolecular Architectures and Materials (MAM-06): Practical Nanochemistry and Novel Approaches, Tokyo, May (2006)
6. 9th FIGIPAS - Meeting in Inorganic Chemistry, Vienna, July (2007)
7. Intl. Conf. Materials For Adv. Tech.-2007 (ICMAT- 2007), Shivaji University, Kolhapur (MS), India, November (2007)
8. China-Nano, Beijing, June (2007)
9. Intl. Conf. Advanced Materials, Mahtma Gandhi Univ., Kerala, December (2007)
10. ICPAM-8, 8th International Conference on Physics of Advanced Materials, Iasi, Romania, June (2008)
11. Nanotechnology International Forum RusNanoTech 2008, Moscow, December (2008)*
12. 1st Intl. Conf. on Nanostructured Materials and Nanocomposites (ICNM – 2009): Kottayam, Kerala, India, April (2009)
13. Workshop on Modeling of Carbon and Inorganic Nanotubes and Nanostructures (<http://www.thch.unipg.it/cinn09/>), Lausanne, May (2009)**
14. CHEMCON 2009, December Visakhapatnam, India
15. BIT Life Sciences' 3rd Annual World Congress of Gene 2009, Foshan, Guangdong, China, December (2009)
16. Panel of experts convened by the National Council for R&D of the government of Chile CONICYT, Santiago, December (2009)
17. 5th Intl. Conf. on Tribochem., Lanzhou (China), September (2009)
18. Techfest, IIT, Bombay (www.techfest.org), Januray (2010)
19. Workshop on: Meta- and Bio/Nano Materials- MAFAT/USAF, Tel-Aviv, Novmeber (2009)
20. 'Nano-Colloidal Lubrication' STLE 2010 Conference, Las Vegas (2010)
21. Ohalo meeting on Bio-Nano, December (2010)
22. 18th International Symposium on Surfactants in Solution (SIS-2010), Melbourne, Australia, November, 2010
23. Passivity10-Porous Anodic Oxides: Nanostructure and Applications, Florianopolis, Brazil, April, 2011
24. 16th International Symposium on Intercalation Compounds (ISIC16), Seč-Ústupky, Czech Republic, May (2011)
25. 4th Intl. Workshop on “Smart Materials&Structures”, Agadir, Morocco, September (2011)

Advisory boards of international and national meetings

1. 69th Israel Chemical Society Meeting, Tel-Aviv, February (2004).
2. E-MRS Symposium: *Current Trends in Nanoscience-from Materials to Applications*, Strasburg, June (2005).
3. *Union of Mater. Res. Soc.-Intl. Conf. on Adv. Mater.* (IUMRS-ICAM), Bangalore, October (2007).
4. *Nanotubes and Nanowires symposium*, E-MRS, Strasburg, May (2007).
5. ASI-NATO School, Sinaia, June (2007)
6. 72th Israel Chemical Society Meeting, Tel-Aviv, February (2007)
7. E-MRS Symposium: *Science and Technology of Nanotubes and Nanowires*, Strasburg, June (2007)
8. TMCN-08, *Transition Metal Chalcogenide/Halide Nanostructures*, Portoroz-Slovenia, May (2008)
9. Intl. Conf. "Nano Science & Technology", ICONSAT 2010, IIT, Bombay, February (2010)
10. UK Condition Monitoring Series, Intl. Conf. on NDT, June (2009-2011)
11. IsraelNano 2009, Jerusalem, March (2009)

Conference chairperson

1. 4th *Bordeaux--Weizmann Institute Annual Meeting: Advanced Materials*, Co-Chair with Prof. O. Kedem, Weizmann Institute (1986)
2. As active member of the board of the *Israeli Vacuum Society* and its president I chaired a number annual meetings and workshops of this society between 1992 to 1996
3. *Weizmann Institute-ETH (Zurich)/EPFL (Lausanne) Forum on Advanced Materials*, Rehovot (February, 2000)
4. *ETH (Zurich)/EPFL (Lausanne)-UC Santa-Barbara- Weizmann Institute Forum on Advanced Materials*, Lausanne (September, 2001). Co-chairing with Prof. N. Setter (EPFL)
5. *The Gerischer Symposium*, Electrochem. Soc. Meet., Paris (April 2003), Co-Chair with C. Levy-Clement, P. Kamat, W. Jaegermann
6. *Italy-Israel Meeting. Adv. Topics Mater. Res.*, Co-Chair with L. Addadi and D. Cahen, Weizmann Institute, November (2003)
7. *German-Israeli Symp. Nanotubes and Nanowires*, Co-Chair with Prof. Dr. G. Seifert, Dresden (June, 2005)
8. *Minerva School on Biological and Bio-inspired Materials*, Harnack Haus, Berlin, with P. Fraztl, H. Juergen-Butt, and M. Gottlieb, May (2007)
9. *First symposium on Transition metal chalcogenide nanostructures (TMCN07)*, Dresden, with D. Tomanek and G. Seifert, March (2007)
10. Symp. Honoring the 80th Birthday of Prof. Moshe Levy (November 2007)
11. *TMCN10*, Transition Metal Chalcogenide Nanostructures, Weizmann Institute, April (2010)
12. *NanoIsrael 2012*, Tel-Aviv, March (2012)

Session chairman

1. 2nd *International Conference on II--VI Compounds*, Aussois, March (1985).
2. Symposium on *Semiconductor-Electrolyte Interfaces* at the Electrochemical Society Meeting, Montreal, May (1985).
3. Panel Member- *Photoelectrochemical Cells*, 6th International Conference on Photochemical Conversion and Storage Solar Energy (IPS6), Paris (1986).
4. *Photoelectrodes Semiconductrices* (GRECO), Ecole Polytechnique, Massy-Palaiseau (1988).
5. European Workshop on "Electrochemical Processing of Semiconductors", Berlin (1989).
6. Symposium on "Fractals and Porous Surfaces", Electrochemical Society Meeting, Montreal, May (1990).
7. Symposium on "Photoelectrochemistry", Electrochemical Society Meeting, Washington, May (1991).
8. Symposium on "Characterization of Thin Film Semiconductors and Interfaces", Electrochemical Society Meeting, Toronto, October (1992).
9. "New Trends in Photoelectrochemistry", Tokyo, March (1994).
10. Symposium on *Fundamental and Applied Studies of 2-D Metal Chalcogenide materials*, Electrochemical Society Meeting, Chicago, October (1995).
11. *Israel Chemical Society session in the AGIL* (Union of Materials Societies of Israel), Jerusalem, May (1996).
12. *Sde Boker conference on Solar Energy Conversion*, March (1996).
13. *International symposium on Fullerenes*, Jerusalem, May (1996).
14. 3rd *Intl. Meeting on New Trends in Photoelectrochemistry*, Estes Park, USA, May (1997).
15. *Fullerene symposium*, 191th Electrochemical Society Meeting, Montreal, May (1997).
16. *4th FGIPS Meeting in Inorganic Chemistry*, Korfu, October (1997).
17. *Israeli Vacuum Society/Israeli Association of Crystal Growth* joint meeting (Fall 1997).
18. *Inorganic nanotubes*, XII Intl. Winterschool, Electronic Frontier of Novel Mater., Kirchberg, Austria, March (1998).
19. 49th *ISE Annual Conference*, Kita Kyushu, Japan, September (1998).

20. *10th Intl. Conf. Vapor Growth and Epitaxy (ICVGE-10)*, Jerusalem (1998) and *12th Intl. Crystal Growth Conf (ICCG-12)*, Jerusalem (1998) (plenary and regular sessions).
21. *Diamond electrochemistry: a critical review*, "2nd Intl. Symp. Diamond Electrodes", Univ. Tokyo, June (1998).
22. *49th Intl. Electrochem. Soc. Meeting*, Kitakyushu, Spetember (1998).
23. *Binational Israel-Japan Symposium on Supramolecular Materials*, Jerusalem, February (1999).
24. *64th Israel Chemical Society Meeting*, Bar-Ilan University, March (1999).
25. *65th Israel Chemical Society Meeting*, Ben-Gurion University, February (2000).
26. *Annual Conf. Isr. Mechanical Eng.*, Beer-Sheva, June (2000).
27. *66th Israel Chemical Society Meeting*, Tel-Aviv, February (2001).
28. *20th Isr. Vacuum Soc. Annual Meeting*, Tel-Aviv, February (2001).
29. EPFL-ETH-WIS-UCSB meeting, Lausanne, September (2001).
30. Israel Vacuum Soc. annual meeting, Tel-Aviv, June (2001).
31. *5th Fullerenes and Atomic Clusters*, St. Ptersburg, July (2001).
32. NT01, Potsdam, July (2001)
31. *XIIth International Symposium on Supramolecular Chemistry (ISSC XII)*, Israel, Summer (2002).
32. *Nanotec-01*, Sussex University, September (2001)
33. ETH (Zurich)/EPFL (Lausanne)-UC Santa-Barbara- Weizmann Institute Forrum on Advanced Materials, Lausanne (September, 2001). Co-charing with Prof. N. Setter (EPFL)
34. *XXII Intl. Union Cryst. Cong.*, Geneva, August (2002)
35. Opening session (with C. Lévy Clement), *The Gerischer Symposium*, 203rd ECS Meeting, Paris, May (2003)
36. Opening session, IUVSTA-Isr. Sci. Found. Workshop, *Electronic Processes and Sensing on the Nanoscale*, Weizmann Institute-Eilat, May (2003)
37. Opening session, *Annual Meeting of the Isr. Vacuum Soc.*, Tel-Aviv, October (2003)
38. Plenary Session, IMEC-11, Israel Materials Engineering Conference, Haifa, December (2003)
39. Opeining Session, *Italy-Israel Meeting. Adv. Topics Mater. Res.* Weizmann Institute, November (2003)
40. Opening plenary session, *69th Isr. Chem. Soc. Meeting*, Tel-Aviv, February (2004)
41. *Poland-France-Israel Meeting on Spectroscopy of Modern Materials*, Poznan, September (2004)
42. *The 5th Pacific Rim Intl. Conf. Adv. Mater. Process*, Bejing, November (2004)
43. *Scanning Probe Microscopy Israel 2005*, Holon Inst. Tech., June (2005)
44. NT-06, Nagano, June (2006)
45. *First Intl. Meeting on Recent Developments in the Study of Radiation Effects in Matter*, Playa del Carmen, Q. Roo, México, December (2006)
46. *MRS Fall meeting*, "Nanotubes and Nanowires" symposium, Boston, November (2006)
47. *Bioinspired Materials*, Minerva sponsored school, Berlin, May (2007)
48. *LaserIon 2007*, Schloss Ringberg, near Munich, July (2007)
49. *IMEC-13, Isr. Mater. Eng. Conf.*, Haifa, December (2007)*
50. *Holland-Israel Symp. on Adv. Mater.*, Weizmann Instit., November (2007)*
51. *Isr. Vacuum Soc. Meeting*, Tel Aviv, October (2008)
52. *74th Isr. Chem. Soc.*, Tel-Aviv, February (2009)
53. *Jacob Klein 60th Anniversary Symp.*, Weizmann Inst., June (2009)
54. *17th Intl. Colloq. Tribology*, Stuttgart, January (2010)
55. *1st workshop on Inorganic Nanotubes (INT-1)*, San Sebastian, September (2009)
56. *6th and 7th Intl. Conf. Condition Monit.* (CM2009 and 2010), Dublin & Stratford-upon-Avon, UK, June (2010)**
57. *IMEC-14*, 14th Israel Mater. Eng. Conf., Tel Aviv, December (2009)
58. *ICONSAT 2010*, Intl. Conf. Nano Sci. & Tech., Mumbai, February (2010)
59. *240th ACS National Meeting* (Division of Fuel Chemistry), Boston, August (2010)*
60. *LaserIon 2010*, Schloss Ringberg, July (2010)
61. *NanolIsrael 2010*, Tel-Aviv, November (2010)
62. *76th Isr. Chem. Soc. Meeting*, Tel-Aviv, February (2011)

* Opening session

Organizing committee of conference and symposia

1. *Bat-Sheva Seminar on Metal Electrolyte and Semiconductor Electrolyte Interfaces*, Ein-Gedi (1981)
2. *World Energy Conference*, Tiberias, (1988)
3. *54th Annual Meeting of Israel Chemical Society*, Weizman Institute (1989)
4. *1st US-ISRAEL Energy Forum*, Shoresh (1990)
5. *Japan -Israel Symposium "Organized Molecular Structures"*, Weizmann Institute, (1991)

6. *New Trends in Photoelectrochemistry 2 (NTP-2)*, Tokyo, Japan (1994)
7. *UK-Israel binational symposium "Frontiers in Surface Science"*, Tel-Aviv, (1994)
8. *7th Israel Materials Engineering Conference*, Haifa, (1994)
9. *International symposium on Fullerenes*, Jerusalem, (1996)
10. *Israel-India Materials Symposium*, Jerusalem, (1996)
11. *3rd Intl. Meeting on New Trends in Photoelectrochemistry (NTP-3)*, Estes Park, USA (1997)
12. *10th Intl. Conf. Vapor Growth and Epitaxy (ICVGE-10)*, Jerusalem (1998) and *12th Intl. Crystal Growth Conf (ICCG-12)*, Jerusalem (1998)
13. *4th Intl. Meeting New Trends in Photoelectrochemistry (NTP-4)*, Nice, France (1999)
14. *66th Annual Meeting Isr. Chem. Soc.*, Tel-Aviv, February (2001)
15. *Supramolecular Chemistry (ISSC XII)*, Tel-Aviv (2002)
16. *IMEC-11, Israel Materials Engineering Conference*, Haifa, December (2003)
17. *Eco-Nano*, Tel-Aviv Univ., May (2005)
18. *IMEC-12*, Beer Sheva, March (2005)
19. *72th Annual Meeting Isr. Chem. Soc.*, Tel-Aviv, February (2006)
20. *Electrochem. Micro and Nanosystem Technologies- EMNT-2008*, Dead Sea, September (2008)
21. *RBNI Winter School of the Technion: Topics in Nanoscience and Nanotechnology*, Dead Sea, February (2008)
22. *NanoIsrael*, Jerusalem, February (2009) and Tel-Aviv, November (2010)