

GALIA MAAYAN

Associate Professor, Schulich Faculty of Chemistry
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Academic Appointments

March 2019-Current Associate Professor, Schulich Faculty of Chemistry, Technion, Israel

March 2012-Feb 2019 Assistant Professor, Schulich Faculty of Chemistry, Technion, Israel

Postdoctoral Employment

Aug 2009-Jul 2011 Research with Prof. George Christou, Department of Chemistry, University of Florida, Gainesville, FL.

Jan 2007-Jul 2009 Research in collaboration with Prof. Michael D. Ward and Prof. Kent Kirshenbaum, Molecular Design Institute, Department of Chemistry, New York University, New York, NY.

Education

2001-2006 Ph.D. studies in the group of Prof. Ronny Neumann, Department of Organic Chemistry, Weizmann Institute of Science, Rehovot, Israel.
Topic of research: "New Systems for Oxidation Reactions Catalyzed by Polyoxometalates".

1999-2000 M.Sc. in the group of Prof. Abraham Shanzer, Department of Organic Chemistry, Weizmann Institute of Science, Rehovot, Israel.
Topic of research: "Synthesis, Characterization and Utilization of a New Ligand for the Preparation of Heteronuclear Complexes"

1995-1998 B.Sc. in Chemistry. Tel-Aviv University, Israel (MAGNA CUM LAUDE)

Awards

2019 Humboldt Research Fellowship for Experienced Researchers

2018 Ray & Miriam Klein Research Prize Fund for an outstanding research work that contributes to Israel's industry, technology, security or scientific standing.

2011 National Science Foundation (NSF) scholar in Green Chemistry.

2010 Joseph Breen Memorial Fellowship in Green Chemistry (ACS award).

2009 The Stereochemical Society of Greater New York travel award.

2003 First-place poster award, The VI Summer School on Green Chemistry, Italy.

Publications

At the Technion

Research articles

1. Guilin Ruan, Pritam Ghosh, Natalia Fridman and Galia Maayan "A Di-Copper-Peptoid in a Non-Innocent Borate Buffer as a Very Fast Electrocatalyst for Homogeneous Water Oxidation with Low Overpotential", *Journal of the American Chemical Society*, **2021**, *143* (28) 10614–10623.
2. Pritam Ghosh, Justin Torner, Prof. Paramjit S. Arora and Prof. Galia Maayan "Dual Control of Peptide Conformation with Light and Metal-Coordination", *Chem – A Eur. J.*, **2021**, *27*, 8956-8959.
3. Pritam Ghosh, Ido Rozenberg and Galia Maayan "Sequence-Function Relationship within Water-Soluble Peptoid Chelators for Cu²⁺", *J. Inorg. Biochem.*, **2021**, *217*, 111388-111395.
4. Naama Gluz and Galia Maayan "The Role of the –OH Groups within Mn₁₂ Clusters in Electrocatalytic Water Oxidation", *Chem – A Eur. J.* **2021**, *27*, 6034-6043.
5. Guilin Ruan, Lee Engelberg, Pritam Ghosh and Galia Maayan "A Co(III)-Peptoid Complex as a Fast Electrocatalyst for Homogeneous Water Oxidation with Low Overpotential", *Chem. Commun.*, **2021**, *57*, 939-942.
6. Pritam Ghosh and Galia Maayan "A Water-Soluble Peptoid that Can Extract Cu²⁺ from Metallothionein via Selective Recognition", *Chem – A Eur. J.*, **2021**, *27*, 1383-1389.
7. Pritam Ghosh and Galia Maayan "A Rationally Designed Peptoid for the Selective Chelation of Zn²⁺ Over Cu²⁺", *Chem. Sci.*, **2020**, *11*, 10127-10134.
8. Pritam Ghosh, Natalia Fridman and Galia Maayan "From Distinct Metallopeptoids to Functional Supramolecular Metallopeptoid Architectures", *Chem – A Eur. J.*, **2021**, *27*, 634-640.
9. Yifat Cohen, Naama Gluz, Shai Bamani, Galia Maayan and Omer Yehezkeli, "Layer by layer assembly of a stable bio-inspired manganese cluster for electrocatalytic water oxidation", *Journal of Catalysis*, **2020**, *389*, 207-211.
10. Darapaneni Chandra Mohan, Totan Ghosh, Pritam Ghosh, Galia Maayan "β-Turn Peptoids and their Application as Asymmetric Catalysts for Michael reaction in Water", *Chemistry-A European Journal*, **2020**, *26*, 9573-9579.
11. Assunta D'Amato, Pritam Ghosh, Giorgio Della Sala, Irene Izzo, Galia Maayan, and Francesco De Riccardis, "Peptoid-based siderophores with catecholamide ligands as archetype for ion complexation," *Dalton Trans.*, **2020**, *49*, 6020-6029.
12. Yekaterina Stamatina and Galia Maayan "A Resin-Bound Peptoid as a Recyclable Heterogeneous Catalyst for Oxidation Reactions", *Eur. J. Org. Chem.* **2020**, *21*, 3147-3152.
13. Lieby Zborovsky, Hagar Tigger-Zaborov, and Galia Maayan "Sequence and Structure of Peptoid Oligomers Can Tune the Photoluminescence of an Embedded Ruthenium Dye", *Chem. Eur. J.* **2019**, *25*, 9098 –9107.
14. Totan Ghosh, George Christou and Galia Maayan "Efficient Homogeneous Electrocatalytic Water Oxidation by a Manganese Cluster with Overpotential of Only 74 mV", *Angew. Chem. Int. Ed.* **2019**, *58*, 2785–2790.
15. Maria Baskin, Hui Zhu, Zheng-Wang Qu, Jordan Chill, Stefan Grimme and Galia Maayan "Folding of Unstructured Peptoids and Formation of Hetero-Bimetallic

- Peptoid Complexes upon Side-Chain-to-Metal Coordination”, *Chem. Sci.* **2019**, *10*, 620-632.
16. Hagar Tigger-Zaborov and Galia Maayan “Unexpected Aggregation of Ag(0) Nanoparticles to Stable Chain-Like Assemblies Mediated by 2,2’-Bipyridine Decorated Peptoids”, *J. Coll. Inter. Sci.* **2019**, *533*, 598-603.
 17. Totan Ghosh, Pritam Ghosh and Galia Maayan “A Copper-Peptoid as a Highly Stable, Efficient and Reusable Homogeneous Water Oxidation Electrocatalyst”, *ACS Catal.* **2018**, *8* (11) 10631-10640.
 18. Naama Gluz and Galia Maayan “Synthesis, Characterization and Electrochemical Properties of New Water-Soluble $Mn_{12}O_{12}(O_2CR)_{16}(H_2O)_4$ Clusters”, *J. Coord. Chem.* **2018**, *71*, 1971-1984.
 19. Maria Baskin and Galia Maayan “Chiral Cu(II), Co(II) and Ni(II) complexes based on 2,2’-bipyridine modified peptoids”, *Dalton Trans.* **2018**, *47*, 10767-10774.
 20. Totan Ghosh, Natalia Fridman, Monica Kosa and Galia Maayan “Self-Assembled Cyclic Structures from Copper (II)-Peptoids”, *Angew. Chem.* **2018**, *57*, 7703-7708.
 21. Darapaneni Chandra Mohan, Prathap Jeya Kaniraj and Galia Maayan “Water Solubility and Secondary Structure Stability of Hydrophobic Peptoids via a Minor Backbone Modification”, *Org & Biomol. Chem.* **2018**, *16*, 1480-1488.
 22. Lieby Zborovsky, Alisa Smolyakova, Maria Baskin and Galia Maayan “A Pure Polyproline Type I-like Peptoid Helix via Metal Coordination” *Chem. Eur. J* **2018**, *24*, 1159-1167. **Selected as Hot Paper.**
 23. Galia Maayan*, Naama Gluz and George Christou “A Bioinspired Soluble Manganese Cluster as a Water-Oxidation Electrocatalyst with Low Overpotential”, *Nat. Catal.* **2018**, *1*, 48-54. **Highlighted in Nat. Catal., 2018, 1, 10-11.**
 24. Rui Li, Alisa Smolyakova, Galia Maayan and Jeffrey Rimer "Designed Peptoids as Tunable Modifiers of Zeolite Crystallization", *Chem. Mat.* **2017**, *29*, 9536-9546.
 25. Hagar Tigger-Zaborov and Galia Maayan “NPs Assemblies on Demand: Controlled Aggregation of Ag(0) Mediated by Modified Peptoid Sequences”, *J. Coll. Inter. Sci.* **2017**, *508*, 56-64.
 26. Darapaneni Chandra Mohan, Arghya Sadhukha and Galia Maayan “A Metallopeptoid as an Efficient Bioinspired Cooperative Catalyst for the Aerobic Oxidative Synthesis of Imines”, *Journal of Catalysis* **2017**, *355*, 139–144.
 27. Maria Baskin, Natalia Fridman, Monica Kosa and Galia Maayan “Heteroleptic Complexes via Solubility Control: Examples of Cu(II), Co(II), Ni(II) and Mn(II) complexes Based on the Derivatives of Terpyridine and Hydroxyquinoline”, *Dalton Trans.* **2017**, *46*, 15330-15339.
 28. Maria Baskin, Larisa Panz and Galia Maayan “Versatile Ruthenium Complexes Based on 2,2’-Bipyridine Modified Peptoids”, *Chem. Commun.*, **2016**, *52*, 10350-10353.
 29. Maria Baskin and Galia Maayan “A rationally designed metal-binding helical peptoid for selective recognition processes”, *Chem. Sci.*, **2016**, *7*, 2809-2820.
 30. Maria Baskin and Galia Maayan “Water Soluble Chiral Metallopeptoids”, *Biopolymers Pept. Sci.* **2015**, *104*, 577-584.
 31. Prathap Jeya Kaniraj and Galia Maayan “Metallopeptoids as Efficient Biomimetic Catalysts”, *Chem. Commun.* **2015**, *51*, 11096-11099.
 32. Prathap Jeya Kaniraj and Galia Maayan “A facile strategy for the construction of cyclic peptoids under MW irradiation through a simple substitution reaction”, *Org. Lett.* **2015**, *17*, 2110-2113.

33. Tamara Zabrodski, Maria Baskin, Prathap Jeya Kaniraj, Galia Maayan* “Click To Bind: Microwave Assisted Solid-Phase Synthesis of Peptoids Incorporating Pyridine-Triazole Ligands and their Copper(II) Complexes”, *Synlett* **2015**, A1-17.
34. Galia Maayan*, Yohai Dayagi, Rina Arad-Yellin, Linda JW Shimon and Abraham Shanzer “Stabilization of Unique Valencies of Cobalt, Nickel and Copper by Complexation with the Tridentate Ligand 2-(2'-Pyridyl)-8-Hydroxyquinoline”, *Polyhedron*, **2013**, *64*, 365-370.

Book chapters and invited reviews

1. Hagar Tigger-Zaborov and Galia Maayan “Aggregation of inorganic nanoparticles mediated by biomimetic oligomers”, *Org. Biomol. Chem.*, **2015**, *13*, 8978-8992.

Prior to the Technion

Research articles

1. **Galia Maayan*** and George Christou, “ ‘Old’ Clusters with New Function: Oxidation Catalysis by High Oxidation State Manganese and Manganese-Cerium Clusters ”, *Inorganic Chemistry*, **2011**, *50* (15), 7015–7021.
2. **Galia Maayan*** and Li-Kai Liu, “Silver Nanoparticles Assemblies Mediated by Functionalized Biomimetic Oligomers”, *Pept. Sci.*, **2011**, *96* (5), 679-687.
3. **Galia Maayan**, Michael D. Ward and Kent Kirshenbaum, “Folded Biomimetic Oligomers for Enantioselective Catalysis”, *Proceedings of the National Academy of Science USA*, **2009**, *106* (33), 13679-13684.
4. **Galia Maayan**, Kent Kirshenbaum and Michael D. Ward, “Metallopeptoids.” *Chemical Communications*, **2009**, 56-58.
5. **Galia Maayan*** and Ronny Neumann, “Direct Aerobic Oxidation of Secondary Alcohols Catalyzed by Pt(0) Nanoparticles Stabilized by $PV_2Mo_{10}O_{40}^{5-}$ Polyoxometalate.” *Catalysis Letters*, **2008**, *123* (1-2), 41-45.
6. **Galia Maayan**, Barney Yoo and Kent Kirshenbaum, “Heterocyclic Amines for the Construction of Peptoid Oligomers Bearing Multi-Dentate Ligands.” *Tetrahedron Letters*, **2008**, *49* (2), 335-338.
7. Maxym V. Vasylyev, **Galia Maayan**, Yonathan Hovav, Adina Haimov and Ronny Neumann, "Palladium Nanoparticles Stabilized by Alkylated Polyethyleneimine as Aqueous Biphasic Catalysts for the Chemoselective Stereocontrolled Hydrogenation of Alkenes." *Organic Letters*, **2006**, *8*(24), 5445-5448.
8. **Galia Maayan**, Benjamin Ganchegui, Walter Leitner and Ronny Neumann, “Selective Aerobic Oxidation in Super Critical CO₂ Catalyzed by $H_5PV_2Mo_{10}O_{40}$.” *Chemical Communications*, **2006**, 2230-2232.
9. **Galia Maayan**, Ronit Popovitz-Biro and Ronny Neumann, “Polyoxometalate Nanoparticles and Their Improved Catalytic Activity for the Aerobic Oxidation of Sulfides”, *Journal of the American Chemical Society*, **2006**, *128*, 4968-4969.
10. Maxym V. Vazylyev, Dorit Sloboda-Rozner, Adina Haimov, **Galia Maayan** and Ronny Neumann, “Strategies for Oxidation Catalyzed by Polyoxometalates at the Interface of Homogeneous and Heterogeneous Catalysis. *Topics in Catalysis* **2005**, *34*, 93-99.
11. **Galia Maayan** and Ronny Neumann, “Direct Aerobic Epoxidation of Alkenes Catalyzed by Metal Nanoparticles Stabilized by the $H_5PV_2Mo_{10}O_{40}$ Polyoxometalate.” *Chemical Communications*, **2005**, 4595-4597. **Highlighted in Green Chemistry**, **2005**, *7*, 763-764.

12. **Galia Maayan**, Richard H. Fish and Ronny Neumann, "Perfluorinated Quaternary Ammonium Salts of Polyoxometalate Anions: Fluorous Biphasic Oxidation Catalysis with and without Fluorous Solvents." *Organic Letters* **2003**, *5*, 3547-3550.

Book chapters and invited reviews

1. **Galia Maayan**, "Interaction of Biomimetic Oligomers with Metal Ions", book chapter in "Metallofoldamers: Supramolecular Architectures from Helicates to Biomimetics", **Galia Maayan** and Markus Albrecht, Eds. *John Wiley & Sons, Ltd*, **2013**.
2. **Galia Maayan**, "Conformational Control in Metallofoldamers: Design, synthesis and structural properties" *invited microreview*, *European Journal of Organic Chemistry*, **2009**, 5699-5710.

Patents

1. **Galia Maayan** and Prathap K. Jeya, "A Facile and general method to solubilize peptoids in water via a minor modification to their backbone, which does not alter their sequence and structure." *PCT Patent Application No. PCT/IL2018/050464*, **2018** and *US National Phase Patent Application No. 16/607, 733*.
2. George Christou, **Galia Maayan**, "Polynuclear Metal Clusters, Methods of Making and Methods of Use Thereof." *PCT Int. Appl. No. PCT/US2012/035808*, **2012**, 30pp.
3. Kent Kirshenbaum, **Galia Maayan**, Michael Ward, "Preparation of Peptoids for Substrate-Selective Catalysis including Asymmetric Catalysis." *PCT Int. Appl. U.S. Serial No. 61/053,958*, **2009**, 80pp.

Grant Support

1. Co-PI, KAMIN, Israel Innovation Authority, "AI driven Peptoid Design for Novel Treatments of Head and Neck Cancer", 600000 NIS, 2021-2024.
2. Co-PI, NEVET, Grand Energy Technion program, "Unbiased photoelectrochemical cell based on BiVO₄/ Mn₁₂O₁₂(O₂CR)₁₆(H₂O)₄ photoanode and Bilirubin oxidase/ABTS/polydopamine cathode", \$25,641, 2019-2020.
3. Co-Investigator, Binational Science Foundation Regular Grant (#2016254) "Photoswitchable Metallopeptides"; \$200,000; 2017-2021.
4. Lamb Research Foundation for Alzheimer's Disease (ATS11393), "Peptidomimetic-based Metal Chelators as Potential Therapeutics for Alzheimer's Disease", \$51,800, 2019 – 2020.
5. PI, Israel Science Foundation (Personal Grant #395/16) "Rationally Designed Metal-Binding Foldamers for Selective Recognition Processes"; \$310,000; 2016-2020.
6. Co-PI, Israel Science Foundation (Institutional Equipment Grant #2220/16) "Equipment for Mass-Spectrometry MALDI-TOF"; \$178,000; 2016-2017.
7. Co-Investigator, Umbrella Cooperation Technion Aachen (# 2022186), "Selective Biomimetic Chelators for Metal ions", \$30,000; 2015-2017.
8. Co-Investigator, Binational Science Foundation Startup Grant (#2012371) "Tailoring Zeolite Crystallization using De Novo Peptoid Growth Modifiers"; \$150,000; 2013-2015.

9. PI, The Solar Fuels I-CORE (Israeli Center of Research Excellence) New Faculty Grant, “A biomimetic approach for the synthesis of molecular catalysts for electrochemical and photochemical water splitting”; 1,755,000 NIS, 2013-2018.
10. PI, The Solar Fuels I-CORE (Israeli Center of Research Excellence) New Faculty Grant, “A biomimetic approach for the synthesis of molecular catalysts for electrochemical and photochemical water splitting”; 410,300 NIS (equipment).
11. PI, Marie Curie Career Integration Grants (#333034) “Conformational Control in Designed Biomimetic Metallofoldamers: Towards Functional Materials”; 100,000 Euro; 2013-2017
12. PI, Irwin Tauben for Alzheimer & Crohn`s Research “Synthesis and Characterization of Metallopeptoids as Potential Therapeutics for Alzheimer Disease; \$5000; 2012-2013.

Invited Lectures

1. “Bio-Inspired Cooperative Catalysis”, *The Hebrew University, Jerusalem, Israel, Nov 15, 2018.*
2. “Bio-Inspired Cooperative Catalysis”, *Weizmann Institute of Science, Rehovot, Israel, Nov 13, 2018.*
3. “Bio-Inspired Cooperative Catalysis” *France-Israel symposium, Strasburg, France October 24-25, 2018. Invited.*
4. “Bio-Inspired Cooperative Catalysis” *International Conference in Honor of Prof. Dan Meyerstein's 80th Birthday, Ariel, Israel, October 3-5 2018. Invited.*
5. “Bio-Inspired Cooperative Catalysis”, *Wisconsin-Madison University, Madison, USA, Sept 20, 2018.*
6. “Bio-Inspired Cooperative Catalysis”, *New York University, NY, NY, USA, Sept 18, 2018.*
7. “Bio-Inspired Cooperative Catalysis”, *Yale University, New Haven, CT, USA, Sept 13, 2018.*
8. “Bio-Inspired Cooperative Catalysis”, *Tufts University, Boston, MS, USA, Sept 10, 2018.*
9. “Bio-Inspired Cooperative Catalysis”, *MIT, Boston, MS, USA, Sept 12, 2018.*
10. “Bio-Inspired Cooperative Catalysis”, *Carnegie Mellon University, Pittsburgh, PA, USA, Sept 7, 2018.*
11. “Bio-Inspired Cooperative Catalysis”, *University of Pittsburgh, Pittsburgh, PA, USA, Sept 6, 2018.*
12. “Excitements and Challenges in Metallopeptoids Catalysis”, *3rd Foldamer Workshop, NY, NY, US, June 20-22, 2018*
13. “Metal Induced Self-assembly, Folding and Allosteric Cooperativity within Peptoids”, *16th Naples Workshop on Bioactive Peptides, Naples, Italy, June 7-9, 2018.*
14. “Cooperativity within Biomimetic Metal Complexes: Folding, Self-Assembly and Electrocatalytic Water Oxidation”, *Tel aviv University, Tel aviv Israel, June 11, 2017.*
15. “Biomimetic Utilization of Metal-Binding Peptoids for Cooperative Catalysis and Recognition”, *The Third Biomimicry Conference – Academy & Industry, Tel aviv University, Tel aviv Israel, June 8, 2017.*
16. “Cooperativity within Biomimetic Metal Complexes: Folding, Self-Assembly and Electrocatalytic Water Oxidation”, *Beer Sheva University of The Negev, Beer Sheva Israel, April 24, 2017.*

17. "Cooperativity within Biomimetic Metal Complexes: Folding, Self-Assembly and Electrocatalytic Water Oxidation", *Bar Ilan University, Ramat Gan Israel, April 19, 2017*.
18. "Biomimetic Utilization of Metal-Binding peptoids for Folding, Recognition and Cooperative Catalysis", *University of Connecticut, Connecticut, US, Aug 13, 2015*.
19. "Biomimetic Utilization of Metal-Binding peptoids for Cooperative Catalysis, Folding and Recognition", *ICIQ, Tarragona, Spain, Feb 24-25, 2015*.
20. "Biomimetic Utilization of Metal-Binding peptoids for Cooperative Catalysis, and Recognition", *80st Annual Meeting of the Israel Chemical Society, Tel Aviv, Isreal, February 9-10, 2015*
21. "Inorganic-Inorganic and Organic-Inorganic Nanomaterials for Catalytic Applications", *RBNI fall symposium, Zichron Yaakov, Israel, November 26, 2014*.
22. "Biomimetic Utilization of Metal-Binding peptoids for Cooperative Catalysis, Folding and Recognition", *Peptides & Proteins Molecules of Life, Gennevilliers (Paris), France, October 5-8, 2014*.
23. "Organic Transformations on Peptoid Oligomers in the Solid Phase", *6th EuChemS Organic Division Young Investigator Workshop, Larnaka, Cyprus, Aug 28-30, 2014*.
24. "Biomimetic Utilization of Metal-Binding peptoids for Cooperative Catalysis, Folding and Recognition", *Functional Peptide and Protein Nanostructures, Tzuba, Israel, May 25-28 2014*.
25. "Folded Biomimetic Oligomers: From Structure to Function", *Autonomous University de Barcelona, Spain, September 25, 2012*.
26. "Inorganic-Inorganic and Organic-Inorganic Nanomaterials for Catalytic Applications", *ICMAB, Barcelona, Spain, September 26, 2012*.

Oral contributions

1. "Recent Advances in Metallopeptoids: Electrocatalytic Water Oxidation and the First Examples of Metallopeptoid Helicates" *Bordeaux foldamers 2018 symposium, IECB, Bordeaux-Pessac, France, Sept 24-26, 2018*.
2. "Selective recognition and self-assembly by Cu(II) binding peptoids", *The copper Bioinorganic Chemistry Symposium (CuBICS 2018), Marseille, France, May 21-24, 2018*.
3. "A Self-Assembled Cyclic Structure and Electrocatalytic Water Oxidation from a Copper(II)-Peptoid", *10th Peptoid Summit, Berkeley, California, US, Aug 10-11, 2017*.
4. "A biomimetic approach for the design of manganese and copper based water oxidation electrocatalysts", *18th International Conference on Biological Inorganic Chemistry, Florianopolis, Brazil, July 31- Aug 5, 2017*.
5. "Fluorescent Ruthenium Complexes Based on 2,2'-Bipyridine Modified Peptoids", *81st Annual Meeting of the Israel Chemical Society, Tel Aviv, Israel, February 9-10, 2017*
6. "Metal binding as a new approach for peptoids folding", *Bordeaux foldamers 2016 symposium, IECB, Bordeaux-Pessac, France, Sept 26-28, 2016*.
7. "A biomimetic approach for the design of water oxidation electrocatalysts", *3rd Solar Fuels I-CORE Workshop, Nahsholim, Israel, Sept 12 -15, 2016*.
8. "Metallopeptoids as Efficient Cooperative Catalysts", *9th Peptoid Summit, Berkeley, California, US, Aug 6-7, 2015*.

9. "A Peptidomimetic Oligomer as a Highly Selective Chelator for Metal Ions", *17th International Conference on Biological Inorganic Chemistry, Beijing, China, July 20-24, 2015.*
10. "Metallopeptoids as Highly Efficient Biomimetic Catalysts", *17th International Symposium on Relations between Homogeneous and Heterogeneous Catalysis, Utrecht, The Netherlands, July 12-15, 2015.*
11. "Biomimetic Utilization of Metal-Binding peptoids for Cooperative Catalysis, and Recognition", *Bordeaux foldamers 2015 symposium, IECB, Bordeaux-Pessac, France, Jan 26-28, 2015.*

Journal Referee Activity

Nature Chemistry, Nature Catalysis, Journal of the American Chemical Society, Angew. Chem., Chemical Science, Nanoscale, Chemical Communications, Organic Letters, Journal of Organic Chemistry, Inorganic Chemistry, Organic and Biomolecular Chemistry, Journal of Colloids and Interface Science, Eur. J. Inorg. Chem., Peptide Science, Polyhedron.

Courses

1. Organic Chemistry (RBM) 125802
2. Selected Topics In Biomimetic Chemistry 127739
3. Organic Chemistry Lab1 1249111
4. Organic Chemistry (for engineers) 125801
5. General Chemistry Laboratory 125013
6. Introduction to research in Chemistry

Research Supervision

MSc

10/2013-6/2016 Alisa Smolyakova, MSc student, Chemistry
 8/2014-3/2017 Naama Yamin-Gluz, MSc student, Chemistry
 10/2016-3/2018 Lee Engelberg, MSc student, Grand Technion Energy Program
 3/2018-current Daniel Astrakhan, MSc candidate, chemistry
 3/2019-current Suraj Phahar, MSc candidate, chemistry

PhD

2013-8/2018 Hagar Tigger, PhD candidate, Chemistry
 2012-8/2018 Maria Baskin, PhD student, Chemistry
 4/2017-current Naama Yamin-Gluz, PhD candidate, Chemistry
 3/2018-current Anastasia Golovetski, PhD candidate, chemistry
 3/2018-current Guilin Ruan, PhD candidate, chemistry

Postdoctoral fellows

2013-2016 Prathap K Jaya, PhD Central Salt & Marine Chemicals Research

| | |
|----------------|-------------------------------------------------------------------------------------------------------------------|
| | Institute, (CSMCRI) and Univ. of Bhavnagar, India |
| 2014-2015 | Marie Correia, PhD Chemistry, University of Florida, US |
| 8/2015-current | Totan Ghosh, PhD University of Calcutta, India |
| 2/2016-7/2018 | Chandramohan Darapaneni, PhD CSIR–Central Salt & Marine Chemicals Research Institute |
| 8/2016-1/2018 | Lieby Zborovsky, PhD Chemistry, Technion |
| 1/2018-current | Pritam Ghosh, PhD CSIR-Central Mechanical Engineering Research Institute (Govt. of India) and Jadavpur University |

Undergraduate and student-abroad project

| | |
|----------------|-----------------------------------------------------------------------|
| Summer 2014 | Achia Livne, Undergraduate student, Materials Engineering |
| Summer 2015 | Liav Eliyahu, Undergraduate student, Materials Engineering |
| 4/2016-9/2016 | Louise Plais, Exchange M.Sc. candidate, the University of Montpellier |
| 5/2016-3/2017 | Ana Yucknovsky, Undergraduate student, Chemistry |
| 07/2016-3/2019 | Katya Stematina, Undergraduate student, Materials Engineering |
| 10/2020-3/2021 | Ido Rozenberg, Undergraduate student, Chemistry |

Press Reports

Related to: G. Maayan and R. Neumann, “Direct Aerobic Epoxidation of Alkenes Catalyzed by Metal Nanoparticles Stabilized by the H₅PV₂Mo₁₀O₄₀ Polyoxometalate.” *Chem. Commun.* **2005**, 4595.

- Highlighted in *Green Chemistry*, 2005, 7, 763-764.

Related to: G. Maayan, M. D. Ward and K. Kirshenbaum, “Folded Biomimetic Oligomers for Enantioselective Catalysis”, *PNAS USA*, **2009**, 106 (33), 13679.

- Kevin Fallon, “Molecules With A Twist”, *NYU Alumni Magazine*, 14, 2010. http://www.nyu.edu/alumni.magazine/issue14/14_square_cuttingedge.html
- *Chemical Processing*, “Catalysts Get A New Twist”, 9.17.2009. <http://www.chemicalprocessing.com/articles/2009/195/>
- Jenny Leonard, “To Get A Reaction Molecules Do The Twist”, *Futurity*, 8.18.2009. <http://www.futurity.org/science-technology/to-get-a-reaction-molecules-do-the-twist/>

Related to our contributions in biomimicry

- Yael Halfman Cohen, “Biomimetic Chemistry – a Window to the Molecular World”, Dec 2016. <http://biomimicrynews.blogspot.co.il/2016/12/blog-post.html>

Related to: G. Maayan*, N. Gluz and G. Christou “A Bioinspired Soluble Mn Cluster as a Water-Oxidation Electrocatalyst with Low Overpotential”, *Nat. Cat.* **2018**, 1, 48-54.

- Highlighted in *Nature Catalysis*, 2018, 1, 10-11.
- <https://www.hayadan.org.il/hydrogen-fuel-production-inspired-by-photosynthesis-14011801>
- <http://biofuelsdigest.com/nuudigest/2018/01/15/affordable-green-hydrogen-it-is-here-near-or-nowhere-in-sight-again/>
- http://www.ifatmediasite.com/CustomMedia/S_ShowItem.aspx?ItemID=WesgvVemyzEgWk3Ht6lIOW==&InfoTypeID=1&PageIndex=0&BackTo=Newsletter.