

ז' תמוז תשע"ט
10 יולי 2019

לכבוד:

פרופ' דן מאירשטיין

שלום רב,

הנדון: דר' דרור שמיר - העלאה בדרגה

ועדת דירוג המחקר והפיתוח של הקרית למחקר גרעיני - נגב, שוקלת את קידומו של **דר' דרור שמיר** לדרגה א'. דירוג המחקר והפיתוח כולל דרגות מ-ג' עד א+ (בהקבלה לדרגות מרצה עד פרופסור מן המניין בדירוג הסגל האקדמי הבכיר). דרגה א' מקבילה לדרגת פרופסור חבר. מעובד המקודם לדרגה זו נדרשת היכולת לבצע ולהוביל מחקר ופיתוח מדעי טכנולוגי ברמה המתאימה. בכלל זה יילקחו בחשבון הישגיו העצמאיים במחקר ופיתוח של המועמד, יכולתו להוביל מגמות חדשות במחקר, כושרו להגדיר משימות ולהוביל צוותים מקצועיים, ויכולתו לקיים ולפתח קשרים מקצועיים עם מוסדות מחקר ופיתוח בארץ ובחו"ל.

נכיר לך תודה אם תואיל להעריך את התאמתו של **דר' דרור שמיר** לקריטריונים אלו. הקרית למחקר גרעיני היא מוסד מחקר ופיתוח שחלק מעבודות המו"פ המבוצעות בו הן פנימיות. על כן נבקש לבסס את הערכתך בעיקר על איכות פרסומיו של המועמד ולא על כמותם, ועל היכרותך (אם קיימת) עם עבודתו ויכולותיו.

אנו מודעים לכך שכתובת חוות הדעת כרוכה בהשקעת זמן ומאמץ מצדך ומודים לך מראש על שיתוף הפעולה.

חוות דעתך תשמר בסודיות ותשמש לצרכי הועדה בלבד.

בברכה



ד"ר אוהד לוי
יו"ר ועדת הדירוג



Dror Shamir

November 2018

CURRICULLUM VITAE AND SYNOPSIS OF RESEARCH

- **Personal Details:**

Name: Dror Shamir

Address: 16 Gefen Str., Gvahot Bar, Israel

Tel: +972-50-6244137

Present Employment: Analytical Chemistry Dept., NRCN, POB. 9001, Beer-Sheva, 84190, Israel, Tel.: +972-8-6568727; Fax: +972-8-6568686

Email: drorshamir@gmail.com

Date of birth: 18.06.1972

Family sit.: married + 3 children

- **Education**

2003-2007: Ph.D. in Chemistry at Ben Gurion University of the Negev, Beer Sheva, supervised by: Prof. D. Meyerstein and Dr. I. Zilbermann

Thesis subject: "Nickel(III) complexes with macrocyclic ligands in aqueous solution".

2001-2003: M.Sc. in Chemistry at Ben Gurion University of the Negev, Beer Sheva, Israel

1998-2001: B.Sc. in Chemistry at Ben Gurion University of the Negev, Beer Sheva, Israel

- **Employment**

2018 – present: Head of R&D at the analytical chemistry department, NRCN

2017: On sabbatical leave, Visiting Senior Researcher at Prof. Zeev Gross' research laboratory, the Technion, Israel

2012 – 2016: Senior chemist at R&D laboratories, NRCN

2007-2012: Head of Analytical laboratory, NRCN

- **Memberships/Fellowships**

1. Israeli Analytical Chemical Society
2. Israel Chemical Society

- **Educational Activities**

(a) Research Students:

Towards Ph.D. degree in Chemistry at Ben-Gurion University of the Negev:

1. Mr. Lior Carmel (co-supervisor Prof. Dan Meyerstein) - studies on going
2. Ms. Yael Peled (co-supervisor Prof. Dan Meyerstein) - studies on going

Towards M.Sc. degree in Chemistry at Ben-Gurion University of the Negev:

1. Mr. Elad Itach (co-supervisor Prof. Dan Meyerstein) – finished 2013

Since 2004: Supervised about 40 students towards practical engineering diploma at the Technological College, Beer Sheva, Israel

(b) Teaching:

2015: Lecturer, General and Analytical Chemistry course for laboratory workers, NRCN.

2012: Lecturer, General and Analytical Chemistry course for laboratory workers, NRCN.

2009-2010: Lecturer and instructor, General and Analytical Chemistry course for technical assistants, the Technological Collage, Beer Sheva, Israel

- **Grants**

2015-2018: Sol-gel matrices as ion and electron exchange columns and as redox catalysts (D. Shamir, A. Burg, Y.Albo) – from The Pazy – IAEC.

2009-2010: Investigation of microbially mediated precipitation of calcium carbonate in naturally occurring sands (M. Tsesarsky, D. Shamir) – from The Ministry of National Infrastructure.

- **Awards**

2010-2016: The kazir scholarship to promising Israeli scientists specializing in fields of natural sciences and engineering.

2006-2006: Prize for excellence in research during the Ph.D Studies from TEVA- TECH industry.

(a) Refereed articles in scientific journals

1. **Dror Shamir**, Isreal Zilbermann, Eric Maimon, Dan Meyerstein, "Oxidation of CH_3NH_2 and $(\text{CH}_3)_2\text{NH}$ by $\text{Ni}^{\text{III}}(\text{cyclam})(\text{H}_2\text{O})_2^{3+}$ in Aqueous Solutions", *European Journal of Inorganic Chemistry*, (2004), (20), 4002-4005
2. **Dror Shamir**, Isreal Zilbermann, Eric Maimon, Alex I. Shames, Haim Cohen, Dan Meyerstein, "Pyrophosphate and ATP as stabilizing ligands for high valent nickel complexes", *European Journal of Inorganic Chemistry*, (2006), (3), 523-525.
3. Rony A. Illos, **Dror Shamir**, Israel Zilbermann, Eric Maimon, Shmuel Bittner, "Dansyl-carbazoloquinone; a chemical and electrochemical fluorescent switch", *Tetrahedron Letters*, (2006), 47(31), 5543-5546.
4. Dalia Mazor, Liya Greenberg, **Dror Shamir**, Dan Meyerstein, Naomi Meyerstein. "Antioxidant properties of bucellamine: Possible mode of action", *Biochemical and Biophysical Research Communication*, (2006), 349(3), 1171-1175.
5. **Dror Shamir**, Israel Zilbermann, Eric Maimon, Haim Cohen, Dan Meyerstein, "Reductive nitrosylation of methyl amine ligated to a nickel (III) complex", *Inorganic Chemistry Communication*, (2007), 10(1), 57-60.
6. **Dror Shamir**, Israel Zilbermann, Eric Maimon, Gary Gellerman, Haim Cohen, Dan Meyerstein, "Reductive nitrosation of peptides ligated to high valent metal cations", *European Journal of Inorganic Chemistry*, (2007), 32, 5029-5031.
7. Inna Popivker, Israel Zilbermann, Eric Maimon, **Dror Shamir**, Naomi Meyerstein, Dan Meyerstein, "On the Reaction mechanism of MoS_4^{2-} with nitric oxide", *Inorganica Chimica Acta*, (2010), 13(5), 589-592.
8. **Dror Shamir**, Israel Zilbermann, Eric Maimon, Alex I. Shames, Haim Cohen, Dan Meyerstein, "anions as stabilizing ligands for $\text{Ni}(\text{III})(\text{cyclam})$ in aqueous solutions", *Inorganica Chimica Acta*, (2010), 363(12), 2819-2823.
9. Danniela Gat, Michael Tsesarsky, **Dror Shamir**, " Precipitation in the presence of non ureolytic competing bacteria", *Geo-Frontiers: advances in geotechnical engineering*, ASCE, (2011), 3966-3974.
10. Elad ittah, **Dror Shamir**, Israel Zilbermann, Eric Maimon, Guy Yardeni, Alex I. Shames, Dan Meyerstein, " Pyrophosphate as stabilizer of $\text{Ni}(\text{III})$ ion in aqueous solution", *Inorganica Chimica Acta*, (2013), 405, 72-76.
11. Ludmila Pochtarenko, **Dror Shamir**, Israel Zilbermann, Dan Meyerstein, " $\text{Fe}(\text{III})_{\text{aq}}$ ions do not catalyze the decomposition of peroxomonosulfate, *Journal of coordination Chemistry*, (2013), 66, 24, 4355-4362.
12. Danniela Gat, Michael Tsesarsky, **Dror Shamir**, Zeev Ronen, " Accelerated microbial microbial-induced CaCO_3 precipitation in defined co-culture of ureolytic and non ureolytic bacteria", *Biogeosciences*, (2014), 11(10), 2561-2569.
13. Ariela Burg, **Dror Shamir**, Inna Shusterman, Haya Kornweits, Dan Meyerstein, " The role of carbonate as a catalyst of Fenton like reaction in AOP

processes: $\text{CO}_3^{\bullet-}$ as the active intermediate", *Chemical Communication*, **2014**, 50(86),13096-13099.

14. Ariela Burg, Yael Albo, **Dror Shamir**, Yair Lavi, Neelam, Dan Meyerstein, "Transition metal complex and nano particles entrapped in sol gel matrices as electron exchange columns and as redox catalysts", In book: *The Optimization of Composition, Structure and Properties of Metals, Oxides, Composites, Nano and Amorphous Materials*", Editor: M. Zinigrad and L. Leontiev, Ural Branch Russian Academy of Science, (**2015**), 59-70.

15. Ariela Burg, **Dror Shamir**, Lina Apelbaum, Yael Albo, Eric Maimon, Dan Meyerstein, "Electro-Catalytic oxidation of amine by Ni (1,4,8,11-tetraazacyclotetradecane) $^{2+}$ entrapped in sol gel electrodes", *European Journal of Inorganic Chemistry*, (**2016**), 4, 459-463.

16. Ariela Burg, Ella Fastovesky, **Dror Shamir**, Haya Kornweits, Dan Meyerstein, "The reaction between the peroxide $\text{VO}(\eta^2\text{-O}_2)(\text{pyridine-2-carboxylate})\cdot 2\text{H}_2\text{O}$ and FeIIaq is not a Fenton like reaction", *Journal of Coordination Chemistry*, (**2016**), 69(11-13), 1722-1729.

17. Yael Albo, Michael Meistelman, Ariela Burg, **Dror Shamir**, "Entrapment of Ag^0 and Au^0 Nanoparticles in sol-gel matrices for catalytic application", In book: *The Optimization of Composition, Structure and Properties of Metals, Oxides, Composites, Nano and Amorphous Materials*. Publisher: Russian Academy of Sciences, Yekatrinnburg, Editor: M. Zinigrad and L. Leontiev, Ural Branch Russian Academy of Science, (**2016**), 4-9.

18. Yael Albo, Neelam, **Dror Shamir**, Ariela Burg, Subramanian Palaniappan, Gil Goobes, Dan Meyerstein, "Polyoxometalates entrapped in sol gel matrices for reducing electron exchange column applications", *Journal of Coordination Chemistry*, (**2016**), 69(23), 3449-3457.

19. Jaydeep Adhikary, Michael Meistelman, Ariela Burg, **Dror Shamir**, Dan Meyerstein, Yael Albo, "Reductive Dehalogenation of Monobromo and Tribromoacetic acid by sodium Borohydride Catalyzed by Gold Nanoparticles Entrapped in Sol-Gel Matrices Follows Different Pathways", *European Journal of Inorganic Chemistry*, (**2017**), 11, 1510-1515.

20. Ariela Burg, Yaniv Wolfer, **Dror Shamir**, Yael Albo, Haya Kornweitz, Eric Maimon, Dan Meyerstein, "Electro-catalytic water oxidation by NiL^{2+} , $\text{L}=1,4,8,11$ -tetraaza-cyclotetradecane, in the presence of HCO_3^- , or $\text{HPO}_4^{2-}/\text{H}_2\text{PO}_4^-$ ", *Dalton transactions*, (**2017**), 46, 10774-10779.

21. Neelam, Yael albo, Ariela Burg, **Dror Shamir**, Dan Meyerstein, "Bromate reduction by an electron exchange column", *Chemical Engineering Journal*, (**2017**), 330, 419-422.

22. Michael Meistelman, Yael albo, Jaydeep Adhikary, Ariela Burg, **Dror Shamir**, Gregory Gershinsky, Dan Meyerstein, " Ag^0 and Au^0 Nanoparticles

Encapsulated in Sol-Gel Matrices as Catalysts in Reductive de-halogenation reactions", *Chemistry Today-Catalysis and Biocatalysis*, (2017), 35 (5), 16-19.

23. Chen Barad, Gal Shekel, Michael Shandalov, Hagay Hayun, Giora Kimmel, **Dror Shamir**, Yaniv Gelbstein, " Internal Nano Voids in yttria Stabilised Zirconia (YSZ) Powder", *Materials* (2017), 10, 1440.

24. **Dror Shamir**, Eric Maimon, Israel Zilbermann, Ariela Burg, Yael Albo, Alexander I. Shames, Radion Vainer, Eitan J.C. Borjovich, Guy Yardeni, Haya Kornweitz, Dan Meyerstein, " Copper(II) catalysis the reduction of perchlorate by both formaldehyde and by dihydrogen in aqueous solutions" , *Journal of Coordination Chemistry*, in press(2018)

25. Yael albo, Neelam, Ariela Burg, **Dror Shamir**, Dan Meyerstein, " Polyoxometalates entrapped in sol-gel matrices as electron exchange columns and catalysts for the reductive de-halogenation of halo-organic acids in water", *Journal of Coordination Chemistry*, in press (2018).

26. Chen Barad, Giora Kimmel, Hagay Hayun, **Dror Shamir**, Michael Shandalov Gal Shekel, Yaniv Gelbstein, " Influence on Galia (Ga₂O₃) addition on Phase Transformations and Crystal Growth Behavior of Zirconia (ZrO₂), *J. Mater Science*, (2018), 53, 12741.

27. Nadav Lerner, Eric Maimon, **Dror Shamir**, Vered Marks, Dan Meyerstein, " A Chemical modified Silica-gel as an Ion Exchange Resin for Separation and Pre-concentration of Actinides and Lanthanides, *Inorganica chimica acta* (2018)

28. Guy Ben Hamu, **Dror Shamir**, Moshe Zohar, Ariela Burg, " Acceleration of the corrosion of Magnesium by Fenton reagents", *Journal of Coordination Chemistry*, in press (2018)

29. Jaydeep Adhikary, Dan Meyerstein, Vered Marks, Michael Meistelman, Gregory Geshinsky, Ariela Burg, **Dror Shamir**, Haya Kornweitz, Yael Albo, " Sol-gel entrapped Au⁰ – and Ag⁰ nanoparticles catalyze reductive de-halogenation of halo-organic compound by BH₄⁻", *Applied Catalysis B: Environmental*, (2018), 239, 450.

30. **Dror Shamir**, Inbar Elias, Dan Meyerstein, Yael Albo, Ariela Burg, " A copper complex as an electro catalyst in the heterogeneous dechlorination of Tri-Chloro-Acetate", to be publish

Oral Lectures at Conferences/Meetings

1. Pyrophosphate and ATP as a stabilizing ligands for high valent nickel complexes, FIGIPAS 8th , Athens, Greece, 2005.
2. Reductive nitrosylation of methyl amine ligated to a nickel (III) complex" 230th ACS National Meeting, Washington, DC, United State, 2005.

3. Reductive nitrosation of amine and peptides ligated to Ni(III)/Cu(III)/Fe(III) Ions", ICCS, South Africa, **2006**.
4. "Reductive nitrosylation of methyl amine ligated to a nickel (III) complex", Israel Society for Oxygen and free radical research, Israel, **2006**.
5. Reductive nitrosylation of Peptides ligated to High-Valent metal Cations", ICBIC 13, Vienna, Austria, **2007**.
6. Redox reaction of cerium Complexes in aqueous solutions", 26th Miller conference on radiation Chemistry, Keszthely, Hungary, **2009**.
7. Entrapment of the complex Cu(2,5,8,11- tertamethyl- 2,5,8,11- tetraazadodecane) in sol-gel electrodes for electrocatalysis", EICC3, Wroclaw, Poland, June, **2015**.
8. Entrapment of the complex Cu(2,5,8,11- tertamethyl- 2,5,8,11- tetraazadodecane) in sol-gel electrodes for electrocatalysis", EMN Mesoporous Materials, Prague, Czech Republic, **2016**.
9. The reaction between the peroxide $\text{VO}(\eta^2\text{-O}_2)(\text{pyridine-2-carboxylate})\cdot 2\text{H}_2\text{O}$ and $\text{Fe}^{\text{II}}_{\text{aq}}$ is not a Fenton like reaction", ECIRM, Krakow, Poland, **2016**.
10. Entrapment of the complex Cu(2,5,8,11- tertamethyl- 2,5,8,11- tetraazadodecane) in sol-gel electrodes for electrocatalysis", IICHE, Tel-Aviv, Israel, **2016**.
11. The role of Carbonate and phosphate in the electro-catalytic water Oxidation by $\text{Ni}^{\text{II}}\text{L}^{2+}$ ", Advanced Oxidation Technologies for Treatment of Water, Air and Soil, Atlanta, USA, **2016**.
12. The role of Carbonate and phosphate in the electro-catalytic water Oxidation by $\text{Ni}^{\text{II}}\text{L}^{2+}$ ", IICHE, Tel-Aviv, Israel, **2017**.
13. Ag^0 and Au^0 Nanoparticles Encapsulated in Sol-Gel Matrices as Catalysts in Reductive de- halogenation reactions", 8th Annual Global Congress of Catalysis, Shanghai, China, **2017**.
14. The role of Carbonate in Heterogeneous Electro-Catalytic Water Oxidation by Ni(II) Complexes", Advanced Oxidation Technologies for Treatment of Water, Air and Soil, Florida, USA, **2017**.

• **Presentation of papers at Conferences/Meetings**

1. Dror Shamir, Israel Zilbermann, Eric Maimon, Dan Meyerstein, Oxidation of Linear Amines by $\text{Ni(III)(1,4,8,11-tetraazacyclotetradecane)(H}_2\text{O)}^{3+}$ in Aqueous Solutions, XXXVth International Conference .Coordination Chemistry, Heidelberg, 2002.
2. Dror Shamir, Israel Zilbermann, Eric Maimon, Dan Meyerstein, "Oxidation of CH_3NH_2 and $(\text{CH}_3)_2\text{NH}$ by $\text{NiIII(cyclam)(H}_2\text{O)}_2^{3+}$ in aqueous solutions" The 67st Meeting of the Israel Chemical Society, Israel, 2002.

3. Dror Shamir, Israel Zilbermann, Eric Maimon, Dan Meyerstein, "Novel axial binding anions as stabilizing species for Ni(III) in aqueous solutions, An electrochemical and spectroscopic study" The 68st Meeting of the Israel Chemical Society, Israel, 2003.
4. Dror Shamir, Israel Zilbermann, Eric Maimon, Haim Cohen, Dan Meyerstein, "Biological ligands like ATP as a stabilizing ligands for high valent nickel complexes" presented as a poster at The 69st Meeting of the Israel Chemical Society, Israel, 2004.
5. Dror Shamir, Israel Zilbermann, Eric Maimon, Haim Cohen, Dan Meyerstein, "Pyrophosphate and ATP as a stabilizing ligands for high valent nickel complexes", ICCS 36, Merida, Mexico, 2004.
6. Dror Shamir, Israel Zilbermann, Eric Maimon, Haim Cohen, Dan Meyerstein, "Pyrophosphate and ATP as a stabilizing ligands for high valent nickel complexes" presented as a poster at The 70st Meeting of the Israel Chemical Society, Tel Aviv, Israel, 2005.
7. Dror Shamir, Israel Zilbermann, Eric Maimon, Haim Cohen, Dan Meyerstein, " The Effect of NO on the Kinetics and Mechanisms of Oxidation of Amines and Peptides by Central Ni(III) Ions", ICBIC-12, Ann Arbor, USA, 2005.
8. Dror Shamir, Israel Zilbermann, Eric Maimon, Haim Cohen, Dan Meyerstein, " ATP as a stabilizing ligand for high valent nickel complexes", ICBIC-12, Ann Arbor, USA, 2005.
9. Dror Shamir, Israel Zilbermann, Eric Maimon, Haim Cohen, Dan Meyerstein, " The Effect of NO on the Kinetics and Mechanisms of Oxidation of Amines and Peptides by Central Ni(III) Ions", 230-th ACS Nat. Meeting, Washington DC, USA, 2005.
10. Dror Shamir, Israel Zilbermann, Eric Maimon, Dan Meyerstein "Reductive nitrosylation of methyl amine ligated to a nickel (III) complex", The 71st Meeting of the Israel Chemical Society, Tel Aviv, Israel, 2006
11. Yaacov Sorek, Dror Shamir, Israel Zilbermann , Eric Maimon, Dan Meyerstein "NO₂ as an intermediate in the oxidation of NO₂⁻ by Ni^{III}(cyclam)(H₂O)₂³⁺", The 72st Meeting of the Israel Chemical Society, Tel Aviv, Israel, 2007
12. Dror Shamir, Israel Zilbermann, Eric Maimon, Dan Meyerstein "Reductive nitrosylation of methyl amine ligated to a nickel (III) complex", Gordon Conference on Reaction Mechanisms in Inorganic Chemistry, Ventura, CA, USA, 2007
13. Guy Yardeni, Israel Zilbermann, Eric Maimon, Dror Shamir, Luba kats, Alex I. Shames, Haim Cohen, Dan Meyerstein, " ATP as a stabilizer of high valent Lanthanide and Transition metal ions", 38th ICCS- International Conference on Coordination Chemistry, Jerusalem, Israel, 2008
14. Elad Ittah, Dror Shamir, Israel Zilbermann, Eric Maimon, Alex I. Shames, Dan Meyerstein, " Pyrophosphate as a stabilizer of Ni(III) ions in aqueous solutions",

- 38th ICCC- International Conference on Coordination Chemistry, Jerusalem, Israel, 2008
15. Guy Yardeni, Israel Zilbermann, Eric Maimon, Dror Shamir, Luba kats, Alex I. Shames, Haim Cohen, Dan Meyerstein, "ATP as a stabilizer of high valent Lanthanide and Transition metal ions", 2nd EUCHEMS- European Chemistry Congress, Turin, Italy, 2008
 16. Dror Shamir, Elad Ittah, Israel Zilbermann, Eric Maimon, Guy Yardeni, Alex I. Shames, Dan Meyerstein, "Pyrophosphate as a Stabilizer of Ni(III) Ions in Aqueous Solutions", 14th Asian Chemical Congress, Bangkok, Thailand, 2011
 17. Dror Shamir, Elad Ittah, Israel Zilbermann, Eric Maimon, Guy Yardeni, Alex I. Shames, Dan Meyerstein, "Pyrophosphate as a Stabilizer of Ni(III) Ions in Aqueous Solutions", The 77st Meeting of the Israel Chemical Society, Israel, 2012
 18. Danniela Gat, Michael Tsesarsky, Dror Shamir, Zeev Ronen "ureolytic CaCO₃ in the presence of non ureolitic bacteria", The 22nd V. M. Goldschmidt Conference. Montreal, Canada. 2012
 19. Ariela Burg, Yaniv Wolfer, Lina Apelbaum, Dror Shamir, Eric Maimon, Dan Meyerstein, "Ni(II)Cyclam in a sol-gel matrix as an Electro-Catalytic", The 28st Miller Conference on radiation Chemistry, Israel, 2013
 20. Ariela Burg, Yaniv Wolfer, Lina Apelbaum, Dror Shamir, Eric Maimon, Dan Meyerstein, "Ni(II)Cyclam in a sol-gel matrix as an Electro-Catalytic", The 78st Meeting of the Israel Chemical Society, Israel, 2013
 21. Ariela Burg, Yaniv Wolfer, Lina Apelbaum, Dror Shamir, Eric Maimon, Dan Meyerstein, "Ni(II)Cyclam in a sol-gel matrix as an Electro-Catalytic", ISOS XVII, The 17th International Symposium on Silicon Chemistry, Berlin, Germany, 2014
 22. Ariela Burg, Inbar Elias, Dror Shamir, Lina Apelbaum, Yael Albo, Dan Meyerstein, "Electrocatalysis by entrapment Cu^{II}(2,5,8,11- tertamethyl- 2,5,8,11-tetraazadodecane) in sol-gel electrodes", EICC3, Wroclaw, Poland, 2015
 23. Ariela Burg, Inbar Elias, Dror Shamir, Lina Apelbaum, Yael Albo, Dan Meyerstein, "Electrocatalysis by entrapment Cu^{II}(2,5,8,11- tertamethyl- 2,5,8,11-tetraazadodecane) in sol-gel electrodes", Israel ElectroChemistry, Israel, 2015
 24. Yael Albo, Neelam, Dror Shamir, Ariela Burg, Subramanian Palaniappan, Gil Goobes, Dan Meyerstein, "Polyoxometalates entrapped in sol gel matrices for reducing electron exchange column applications", The 81st Meeting of the Israel Chemical Society, Israel, 2016
 25. Michael Meistelman, Yael albo, Ariela Burg, Dror Shamir, Dan Meyerstein, "Reductive dehalogenation of haloacetic acids catalyzed by Ag⁰ Nanoparticles incorporated in sol-gel matrices", The 81st Meeting of the Israel Chemical Society, Israel, 2016
 26. Neelam Singh, Yael albo, Ariela Burg, Dror Shamir, Dan Meyerstein "Electron exchange columns for contaminated water treatment", The 82th Meeting of the Israel Chemical Society, Israel, 2017

27. Michael Meistelman, Yael albo, Ariela Burg, Dror Shamir," Ag⁰ and Au⁰ Nanoparticals Encapsulated in Sol-Gel Matrices as Catalyts in Reductive dehalogenation reactions", The 8th Eastern Mediterranean Chemical Engineering Conference, Haifa, Israel, 2017

- **Peer-Review Referee of:**

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