

CURRICULUM VITAE

Name: Ariela Burg

Date & place of birth: August 9, 1971, Rehovot, Israel.

Citizenship: Israeli

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Military service: 1989-1991, guide in Engineering Force.

1. Academic education

- 1999-2003 PhD in Chemistry. Ben-Gurion University of the Negev, Israel. Dissertation title: "Ligand effects on the Chemical Activity of Copper(I) Complexes". Advisors: Prof. Dan Meyerstein and Prof. Haim Cohen.
- 1997-1998 MSc in Chemistry. Ben-Gurion University of the Negev, Israel. Dissertation title: "The reaction mechanism of nithrosothiols with Cu(I)". Advisors: Prof. Dan Meyerstein and Prof. Haim Cohen.
- 1994-1997 BSc (**Graduated Cum Laude**) in Chemistry. Ben-Gurion University of the Negev, Israel.

2. Academic employment

- Since 2009 Senior Lecturer, Chemical Engineering Department, SCE - Sami Shamoon College of Engineering, Israel.
- 2004-2009 Lecturer, Chemical Engineering Department, SCE – Sami Shamoon College of Engineering, Israel.
- 2007-2017 Extrnal Lecturer, Chemistry Department, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
- 2000-2004 Teaching assistant, Chemical Engineering Department, SCE - Sami Shamoon College of Engineering, Israel.
- 1997-2003 Teaching assistant, Chemistry Department, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
- 1996-1997 Research assistant, Inorganic chemistry laboratory, Chemistry Department, Ben-Gurion University of the Negev, Beer-Sheva, Israel.

3. Academic research and development activities

3.1. Previous research and development activities

- 2005-2013 Influence of environmental pollution on breast milk.
- 2005-2013 Decomposition of nitrites and aromatic compounds by Cu(I) catalyzes.

2005-2017 Profiling of oxidation reactions and anti-oxidant levels in the blood of patients suffering from anorexia nervosa. Study the effect of polyunsaturated fatty acids and anti-oxidants in breast milk and in formula milk.

3.2. Present research and development activities

Since 2017 Enhancing energy harvesting by using DPN-fabricated meta-chemical surfaces.
Since 2016 Exploration of new sol-gel processes in the treatment of waste from streams containing heavy metals and radioactive ions.
Since 2013 Oxidation and electro catalysis of water.
Since 2013 Effect of the Fenton reaction on corrosion processes; Fenton reaction mechanism.
Since 2012 Sol-gel matrices as ion and electron exchange columns and as redox catalysts.
Since 2005 Coordination chemistry of transition metals and the catalytic activity of their complexes in aqueous solutions and in heterogeneous systems.

3.3. M.Sc. and Ph.D. Thesis Students

Since 2019 Student supervisor, Zorik Shamish, MSc. student.
Since 2019 Student supervisor, Catherine Dobos, MSc. student.
Since 2019 Student supervisor, Dganit Ben Hamu, MSc. student.
Since 2019 Student supervisor, Lior Carmel, PhD student.
Since 2018 Student supervisor, Ido Sabag, MSc thesis.
Since 2018 Student supervisor, Shira Biton, MSc thesis.
Since 2017 Student supervisor, Shiran Aaron, MSc thesis.
2017-2019 Student supervisor, Kira Bresler, MSc thesis.
2014-2017 Student supervisor, Ella Fastovski, MSc thesis.
2010-2017 Student supervisor, Yaniv Wallfer, PhD thesis.
2009-2015 Student supervisor, Inbar Elias, MSc thesis.
2008-2012 Student supervisor, Inna Shusterman, MSc thesis.
2007-2010 Student supervisor, Yaniv Wallfer, MSc thesis.
Since 2006 Student supervisor of BSc students' final projects.

4. Grants and awards

4.1. Grants (sum=\$)

2009 The Royal Society of Chemistry grant, (£2000).
2015 Pazi Foundation, "Sol-gel matrices as ion and electron exchange columns and as redox catalysts", (\$280000).

5. Academic roles

- Since 2018** **Head of the of the Green Engineering second degree, Sami Shamoon College of Engineering, Chemical Engineering Department.**
- Since 2018 Member of the Green Engineering Contents committee, Sami Shamoon College of Engineering, Chemical Engineering Department.
- Since 2018 Member of the Green Engineering pedagogy committee, Sami Shamoon College of Engineering, Chemical Engineering Department.
- Since 2018 Head the Nanotechnology specialization, Sami Shamoon College of Engineering, Chemical Engineering Department.
- Since 2017 **Head of the Chemical Engineering Department**, Sami Shamoon College of Engineering, Chemical Engineering Department.
- Since 2017 Head and a Member of Chemical Engineering Department curriculum committee, Sami Shamoon College of Engineering, Chemical Engineering Department.
- Since 2017 Head of the Chemical Engineering Department pedagogy committee, Sami Shamoon College of Engineering, Chemical Engineering Department.
- Since 2017 Head of the Chemical Engineering Department Contents committee, Sami Shamoon College of Engineering, Chemical Engineering Department
- Since 2017 Member of SCE green committee, Sami Shamoon College of Engineering, Chemical Engineering Department.
- Since 2017 Responsible for 3rd and 4th year students, Sami Shamoon College of Engineering, Chemical Engineering Department.
- 2007-2017 Member of Chemical Engineering Department contents committee, Sami Shamoon College of Engineering, Chemical Engineering Department.

6. Preparation of academic programs

- 2018 Development of the Nanotechnology specialization.
- 2017 Development of scientific information search and writing scientific documents course for students.
- 2012-2013 Development of the Nano technological laboratories for students.
- 2007-2008 Development of the Analytical Chemistry laboratories for students.

7. Courses taught

- Since 2004 Physical Chemistry, Analytical Chemistry, General Chemistry, Introduction to Chemistry, Laboratory supervisor of analytical chemistry, physical chemistry and nano technological course and lab.

8. Positions in conferences

1. Chairman in 8th FIGIPAS Meeting in Inorganic Chemistry, Athens, 6-9 July, 2005.
2. Member of the organizing international committee, Advanced Oxidation Technologies for Treatment of Water, Air and Soil, 13-17/11/16, Atlanta, USA.
3. Member of the organizing international committee, Advanced Oxidation Technologies for Treatment of Water, Air and Soil, 11/17, Tampa, USA.

9. Membership in professional/scientific societies

- Since 2009 Membership in the Royal Society of Chemistry.