

## CURRICULUM VITAE

Dr. Alec Groysman

March 2023

### Work address:

Technion  
Israel Institute of Technology  
Faculty of Chemical Engineering  
Haifa, 3200003

### Home address:

Shekhaniya 13  
Misgav 2018300  
Israel

### Personal:

ID Number: 30453382-1  
Place of birth: Yalta, Crimea, USSR  
Marital Status: married, two children

Tel: 972-772098057

Celular: 972-544-300-866

E-mail: alecgroysman@gmail.com

Website: www.groysmanalec.com

### ACADEMIC EDUCATION :

- 1978 – 1983 : Ph.D. in Chemistry, Mendeleyev Chemical Technological University, Moscow, USSR.  
*“Influence of Temperature on Solubility of Oxygen and its Chemical Interaction with Mild Steel in Aqueous Solutions of Salts.”* Diploma XM No. 012036, 4.01.1984.
- 1967 – 1973 : Masters Degree in Chemical Engineering, Mendeleyev Chemical Technological University, Moscow, USSR. *“Separation of Isotopes of Lithium and Calcium by Amalgam-Chromatographic Method.”* Honours Diploma C No. 182599.

### EMPLOYMENT:

- 2012 – Materials and Corrosion Engineering subject matter expert:  
Consultant in Materials, Corrosion, Corrosion Control and Monitoring, Coatings, etc.
- 1993 – 2012 : Head of Materials and Corrosion R&D Laboratory, Oil Refineries Ltd., Haifa, Israel.
- 1990 – 1993 : Corrosion Engineer in R&D Laboratory, Oil Refineries Ltd., Haifa.
- 1976 – 1990 : Central Scientific Research Laboratory, “Goscomnefteproduct RSFSR”  
Ministry of Oil and Petrochemical Industry, Astrakhan, USSR.
- 1988 – 1990 : Deputy Director of Central Scientific Research Laboratory.
- 1984 – 1988 : Head of Corrosion Department.
- 1981 – 1984 : Head of Corrosion Laboratory.
- 1976 – 1981 : Engineer – researcher, Corrosion Laboratory.

### ACADEMIC EMPLOYMENT:

- 2019- 2020 Adjunct senior lecturer, Course “Corrosion and Protection Methods in Biotechnology”, Department of Chemical Engineering, Biotechnology and Materials, Ariel University, Israel.
- 2019 Lecturer, Course “Corrosion of Pipelines”, Materials Engineering Department, University of British Columbia, Pipeline Integrity Institute, Vancouver, Canada, 16-27 September 2019.
- 2019 Lecturer, Course “Corrosion of Construction Materials”, Civil Engineering Institute, Department of Construction of Unique Buildings and Structures, St. Petersburg State Polytechnic University named after Peter the Great, Russia, 14-27 May 2019.
- 2019 Lecturer, Course “Corrosion Problems and Solutions in Oil Refining and Petrochemical Industry”, St. Petersburg State Polytechnic University

- named after Peter the Great, Russia, 20-22 May 2019.
- 2018 Lecturer, Autumn Corrosion Training Course, Technical University of Kosice, Slovakia, 24-25 September 2018.
- 2018 Lecturer, Corrosion Engineering Course, University of Surrey, Guildford, UK, 30 April – 4 May 2018.
- 2017 Visiting Erskine Fellow, A lecturer, Department of Mechanical Engineering, Chemical and Processing Engineering, University of Canterbury, Christchurch, Canterbury, 20.2 – 3.6.2017, New Zealand.
- 2012 – present Adjunct senior lecturer, Grand Technion Energy Program, Natural Gas and Petroleum Engineering Program, Department of Chemical Engineering, Technion (The Israel Institute of Technology), Israel.
- 1997 – 2014 Adjunct lecturer, ORT Braude College of Engineering, Karmiel, Israel.
- 1998 – 1999 Adjunct lecturer, Department of Chemical Engineering, Technion, Israel.
- 2000 – 2006 Adjunct lecturer, Chemical Department, Bar Ilan University, Israel.

### **PROFESSIONAL EXPERIENCE:**

- Corrosion, Corrosion Control and Corrosion Monitoring in Oil and Gas, Oil Refining and Petrochemical Industry. Corrosion and Materials Audit at operational plants.
- Coatings (paints, polymers, ceramic, arc-sprayed metalizing coatings). Testing and examination of coatings in laboratory, in field and in different industrial conditions.
- Corrosion Monitoring and Corrosion Control in Industry.
- Choice and Use of Corrosion Inhibitors in Oil Refining Industry: processing and cooling water systems.
- Examination of Corrosion Inhibitors.
- Failure Analysis.
- Choice and Use of Materials for Aggressive Media. Examination of new materials.
- Corrosion of Metals and Anticorrosion Measures.
- Corrosion and Corrosion Control of Pipelines, Aboveground and Underground Storage Tanks.
- Anticorrosion Preventive Measures of Industrial Structures and Equipment.
- Chemical Cleaning of Industrial Equipment.
- Thermodynamics and Kinetics of Corrosion Processes.
- Expert in litigations (lawsuits) on corrosion and materials topics.
- Corrosion Management.
- Corrosion Risk.

### **RESEARCH COLLABORATION:**

- 2000 – 2002 Project “Self-Assembled Organic Films on Non-Noble Metals and Alloys: A Novel Approval to Interface – Related Technological Challenges” (Funded by Israeli Ministry of Science, Culture and Sport) – Cooperation with Prof. Israel Rubinstein (Weizmann Institute of Science), Prof. Daniel Mandler (The Hebrew University of Jerusalem), Prof. Chaim Sukenik (Bar Ilan University, Tel-Aviv).

## TEACHING EXPERIENCE:

1998 – 1999	Technion (Israel Institute of Technology), Department of Chemical Engineering, Haifa, Undergraduate course: “Corrosion of Metals and Corrosion Control”
2000 – 2006	Bar-Ilan University, Chemical Department, Ramat-Gan, Israel, Undergraduate, graduate and Ph. D courses: “Corrosion of Metals”, “Chemical Resistance of Materials”, “Materials Science and Engineering”.
1997 – 2014	ORT Braude College of Engineering, Karmiel, Israel, Undergraduate courses: “Corrosion of Metals and Corrosion Control” (Department of Mechanical Engineering) and “Physical Chemistry (Chemical Thermodynamics)” (Biotechnology Engineering).
2012 - present	Technion (Israel Institute of Technology), Grand Technion Energy Program, Natural Gas and Petroleum Engineering Program, Graduate course: “Materials and Standards in Natural Gas and Petroleum Engineering”.
2013 – 2014	ORT Braude College of Engineering, Karmiel, Israel, Undergraduate course: “Technology of Natural Gas” (Department of Mechanical Engineering).
2017	University of Canterbury, Christchurch, New Zealand, Undergraduate course: “Corrosion of Engineering Materials” (Departments of Mechanical Engineering, Chemical and Processing Engineering).
2018	University of Surrey, Guildford, UK, Course: “Corrosion Engineering”, 30 April-4 May 2018.
2019	St. Petersburg State Polytechnic University named after Peter the Great, Russia, 14-27 May 2019. Course “Corrosion of Construction Materials”.
2019	Lecturer, Course “Corrosion of Pipelines”, Materials Engineering Department, University of British Columbia, Pipeline Integrity Institute, Vancouver, Canada, 16-27 September 2019.
2019	Lecturer, Course “Corrosion, Corrosion Control and Monitoring in Systems Containing Crude Oil, Fuels, and Natural Gas”, The Israeli Institute of Energy and the Environment, Tel Aviv, Israel, 13 November – 11 December 2019.
2020	Lecturer, Course “ <i>Corrosion Mechanisms and Control at the Technological Units of Pavlodar Oil Refinery and Petrochemical Plant</i> ”, On-line course (24 hours) by Internet Zoom, Kazakhstan, 3-11 August 2020.
2020	Lecturer, Course “ <i>Corrosion, corrosion control and monitoring in systems manufactured by FilterSafe</i> ”, On-line course (22 hours) by Internet Zoom, Israel, 6 September -12 October 2020.

2021	Lecturer, Short Course “ <i>Corrosion in Energy Sector</i> ”, On-line course (2 hours) by Internet, Canada, 25 May 2021.
2021	Lecturer, Course “Corrosion Mechanisms and Control at the Technological Units of Pavlodar Oil Refinery and Petrochemical Plant (QazMunaiGas)”, On-line course (24 hours) by Internet Zoom, Kazakhstan, 1-5 November 2021.
2021	Lecturer, Course “Corrosion Mechanisms and Control at the Technological Units of Atyrau Refinery (QazMunaiGas)”, On-line course (24 hours) by Internet Zoom, Kazakhstan, 22-26 November 2021.
2021-2022	Lecturer, Course “Corrosion, Corrosion Control and Monitoring in Systems Containing Crude Oil, Fuels, and Natural Gas”, The Israeli Institute of Energy and the Environment, Tel Aviv, Israel, 29 November 2021 – 10 January 2022. Off-line.
2022	Lecture “Corrosion, Corrosion Control and Monitoring in Systems Containing Crude Oil, Fuels, and Natural Gas”, Course “Uses and compositions of fossil fuels and natural gas”, The Israeli Institute of Energy and the Environment, Tel Aviv, Israel, 11 January 2022. Off-line.
2022	Lecturer, Course “Corrosion of Stainless Steel, Surface Treatment and Passivation”, On-line course (4 hours) by Internet Zoom, IceCure Medical Ltd., Caesariya, Israel, 28-29 June 2022.
2022	Lecturer, Course “Corrosion Mechanisms and Control at the Technological Units of Pavlodar Oil Refinery and Petrochemical Plant (QazMunaiGas)”, On-line course (24 hours) by Internet Zoom, Kazakhstan, 26 October - 8 November 2022.

**PUBLIC POSITIONS AND ACTIVITIES:**

1. President of Honor of the Association of Chemical Engineers & Chemists in Israel (2019 -).
2. Chairman of Haifa and the North Branch Association of Engineers, Architects and Graduates in Technological Sciences in Israel (2012 - 2019).
3. Chairman of Association of Chemical Engineers & Chemists in Israel (2008 - 2019).
4. The Board Member of the Journal “The Practice of Anticorrosive Protection” (Moscow, Russia) (2015 – present).
5. The Board Member of Israel Institute of Chemical Engineers (2010 - 2015).
6. Member of the Council of Engineering and Architecture Licensing and Registration of Engineers and Architects at the Israeli Ministry of Industry and Trade (2008 – present).
7. Chairman of the NACE Israel Corrosion Forum (2005 – 2007) (National Association of Corrosion Engineers International).
8. Vice-Chairman of Association of Chemical Engineers & Chemists in Israel (2007- 2008).
9. Member of Professional Corrosion Committee in the Institute of Standards (Israel) (2002 – present).
10. EU: Member of two Working Parties in the European Federation of Corrosion:

- “Corrosion Education and Computer Applications” (WP 7) and “Corrosion in the Refining Industry” (WP 15) and Technical Committees “Refining Industry Corrosion” and “Water Treatment” in the NACE International.
11. Member of the International Scientific Committee of the Journal “Advances in Materials Science” (2010 – present).
  11. Member of the Scientific-Research Committee in the Israeli Institute for Energy and Environment (2012 – present).

#### **AWARDS:**

The 2012 *Materials Performance* (NACE International) Readers’ Choice Corrosion Innovation of the Year Awards for the book “*Corrosion for Everybody*” published by Springer in 2010.

#### **MEMBERSHIP IN PROFESSIONAL SOCIETIES:**

- 1992 – present Member (No. 145411) of the Association for Materials Protection and Performance (AMPP) – the former National Association of Corrosion Engineers (NACE International).
- 1999 – present Member (No. 0173) of the Israel Chemical Society.
- 2006 – present Member (No. 3045) of the European Federation of Corrosion.
- 2011 - 2014 Member of the Board of the Israel Institute of Chemical Engineers.

#### **RESEACH STUDENTS:**

Ph.D. *Ekaterina Grishina*, Ph.D. (2014), “Inhibitive Properties of Humic Substances Extracted from Flax”, Technion, (Co-adviser, with Prof. Yair Ein-Eli and Prof. Sergey Belopuhov).

Ph.D. *Sergio Meth*, Ph.D. (2003), “Surface Modification of Stainless Steel With Siloxane Monolayers – Applications to Corrosion Protection”, Bar Ilan University, Tel-Aviv, (Co-advisor, with Professor Chaim Sukenik).

Graduate:

*Norik Artakovich Grigoryan*, Company LUKOIL-Nizhnevolzhskneft, Astrakhan, Russia, “Investigation of the state of the water pipeline between RB and LSP-2 of The well named after V. Filanovsky. Identification of the causes of high corrosion rate and development of measures to reduce it.” 2021.

*Katya Bogomolov*, Technion, Haifa and Israeli Air Forces (Co-advisors: Prof. Yair Ein-Eli and Dr. Moshe Rabaev), “Characterization and optimization of AlSi10Mg alloy anodization process manufactured by LPBF”, 2021 - ...

Undergraduate:

*Dima Kazdan*, B.A. (1994), “Examination of Dispersants for Water Cleaning from Oil Deterioration”, Technion, Haifa, Israel.

*Sasha Kravetz*, B.A. (1996), “Corrosion Monitoring at the Oil Refinery Units”, ORT Braude College, Karmiel, Israel.

*Natasha Erdman*, B.A. (1997-1998), “Corrosion and Protection of Mild Steel in Mixture Petroleum Distillates – Electrolyte”, Technion, Haifa, Israel.

*Tatayana Kravchuk*, B.A. (1998-1999), “Influence of Peroxocompounds on Corrosion of Mild Steel and Admiralty Brass in Aqueous Solution”, Technion, Haifa, Israel.

*Boris Boriskovsky*, B.A. (1999-2000), “Study of Corrosiveness of Crude Oil Towards Low Alloy Steels”, Technion, Haifa, Israel.

*Inna Shvarts*, B.A. (2002-2004), “Study of the Efficiency of Industrial Corrosion Inhibitors for the Oil Refinery Cooling Water”, Technion, Haifa, Israel.

*Alon Goldis*, B.A. (2002-2004), “Study of Corrosiveness of Acidic Crude Oil and its Fractions”, Technion, Haifa, Israel.

*Natalie Savchenko*, B.A. (2002-2004), “Study of Corrosiveness of Acidic Crude Oil and its Fractions”, Technion, Haifa, Israel.

*Inna Shvarts*, B.A. (2004-2005), “Study of Protection of Carbon Steel by Al and Mg Sacrificial Anodes in Cooling Water of the Oil Refinery”, Technion, Haifa, Israel.

*Dima Shmulevich*, B.A. (2005-2007), “Naphthenic Acid Corrosion Study and Preventive Methods”, Technion, Haifa, Israel.

*Kobi Elbaz*, B.A. (2006-2007), “Analysis of Corrosion Failures in Oil Refineries and Estimation of Economical Losses”, ORT Braude College, Karmiel, Israel.

*Svetlana Skorodinsky*, B.A. (2007-2008), “Corrosion of Carbon Steels in the Presence of Naphthenic Acids and Anti-Corrosion Preventive Methods”, ORT Braude College, Karmiel, Israel.

*Shahar Cohen*, B.A. (2007-2009), “Inhibition of Carbon Steel Corrosion in Acidic Crude Oils”, Technion, Haifa, Israel.

*Natasha Shtepa*, B.A. (2008-2009), “Analysis of Corrosion Failures in Oil Refineries` Units and Estimation of Economical Losses”, ORT Braude College, Karmiel, Israel.

*Guy Maoz*, B.A. (2008-2009), “Analysis of Corrosion Failures in Oil Refineries` Units”, ORT Braude College, Karmiel, Israel.

*Lior Tobolsky*, B.A. (2009-2010), “Study of Corrosion and Protection in Cooling Water Systems of Pumps in Oil Refineries` Units”, ORT Braude College, Karmiel, Israel.

*Rafi Siso*, B.A. (2010), “Definition and Analysis of Corrosion Rates of Aboveground Storage Tanks for Crude Oils and Fuels”, ORT Braude College, Karmiel, Israel.

*Liran Mizrahi*, B.A. (2010), “Development of Green Inhibitors for Corrosion Control and Examination of Alloys Resistant to the Overhead Crude Oil Distillation Towers”, ORT Braude College, Karmiel, Israel.

*Shirly Mazkapely*, B.A. (2010), “Corrosion Control in Cooling Water System for Compressors at Electric Power Station in the Oil Refinery”, ORT Braude College, Karmiel, Israel.

*Shlomi Elbaz*, B.A. (2011-2012), “Analysis Corrosion Failures at the Oil Refineries` Units and Estimation of Economical Losses and Corrosion Management in 2009”, ORT Braude College, Karmiel, Israel.

*Andrew Hindle, Hannah Martin, Praise Li, Riley Wilson* (2017), B.A. “Corrosion of Carbon Steel Pipes vs Depth in Soil of New Zealand”, Mechanical Engineering Department, University of Canterbury, Christchurch, New Zealand.

*Norik Grigoriyan* (2019), B.A. “Corrosion, Corrosion Control and Corrosion Monitoring of Pipelines of LUKOIL company”, Mechanical Engineering Faculty, Astrahan State Technical University, Astrahan, Russia.

#### **PROFESSIONAL ACTIVITIES:**

- 2022-2023 A member of the Scientific Committee of the 15<sup>th</sup> Mediterranean Chemical Engineering Congress, Expoquimia, Barcelona, May 30 - June 2, 2023.
- 2022 A scientific head and an organizer of an on-line seminar “Stainless Steel: From Dream to Reality”, April 8, 2021, Fira Barcelona, Spain.
- 2021 A member of the program committee of the International conference “Surface Treatment and Corrosion Protection” dedicated to the year of science and technology in the Russian Federation and the 100th anniversary of higher education at the Russian Chemico-Technological University named after D.I. Mendeleev, September 23, 2021, Moscow, Russia.
- 2021 A member of the program committee of the International conference “Actual aspects of electrochemistry, ecology and corrosion control” in memory of Honour Fellow of Science and Technique of Russian Federation, Professor V.I. Vigdorovich, October 27-29, 2021, Tambov, Russia.
- 2019-2020 Head of the International Scientific Committee of the International Conference “*Corrosion in oil and gas industry*”, Saint Petersburg Polytechnic University named after Peter the Great, May 20-22, 2020, St. Petersburg, Russia.
- 2019 A member of the program committee of the International conference “Actual aspects of electrochemistry, corrosion protection and ecology” in memory of Honour Fellow of Science and Technique of Russian Federation, Professor V.I. Vigdorovich, October 23-25, 2019, Tambov, Russia.
- 2019 Organizer of the conference “*150 Anniversary of the Periodic Table by Mendeleev*”, March 5, 2019, Tel-Aviv, Israel.
- 2019 Organizer of the meeting in honor of the published book by Noam Eliaz and Eliezer Gileadi “*Physical Electrochemistry*”, WILEY-VCH, 2019, Tel-Aviv University, Israel.
- 2018-2019 Member of the International Scientific Committee of the International Conference “*Corrosion in oil and gas industry*”, Saint Petersburg Polytechnic

- University named after Peter the Great, May 22-24, 2019, St. Petersburg, Russia.
- 2018 Organizer of the conference “*Innovation in fuels and their impact on the environment*”, December 19, 2018, Tel-Aviv, Israel.
- 2018 Member of the International Steering Committee of the 1<sup>st</sup> International Conference “*Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage*”, 10-13 October 2018, Athens, Greece.
- 2018 Organizer of the seminar “*The development of the chemical industry and technologies in Israel*”, February 25-28, 2018, Hotel Herods, the Dead Sea, Israel.
- 2018 Member of the International Scientific Committee of the International Conference “*Corrosion and Surface Treatment in Industry 2018*”, 26-28<sup>th</sup> September, 2018, Viglas, Slovakia.
- 2017 Member of the International Scientific Committee of the EUROCORR 2017 / 20<sup>th</sup> International Corrosion Congress / Process Safety Congress 2017; Chairperson of the Section “*Corrosion in Oil and Gas Industry*”; Participant of the Process Safety Leadership panel discussion. 3-7 September, 2017, Prague, Czech Republic.
- 2016 Video speech at the International Symposium Cyprus - Greece - Israel “*Restoration and preservation of religious sites and places of worship*”, August 31, 2016, Nicosia, Cyprus.  
<https://www.youtube.com/watch?v=5VF8us2xdXY>
- 2016 Video speech at the Meeting “*The Strategy of the Independent Development of the South Eastern Mediterranean Region*” (engineering societies of Greece, Israel and Cyprus), June 27, 2016, Athens, Greece.  
<https://www.youtube.com/watch?v=pBVjp0WcA6A> (27:45-33:13).
- 2016 Organizer of the seminar “*Science, Technology and What is Between Them*” November 13-16, 2016, Hotel Daniel, the Dead Sea, Israel.
- 2016 Organizer of the conference “*Natural Gas in Israel: Present and Future*” September 20, 2016, Tel-Aviv, Israel.
- 2016 Organizer of the seminar “*Technologies: Pros and Cons*”, June 5-8, 2016, Hotel Isrotel, the Dead Sea, Israel.
- 2016 Member of the Organizing Committee of the 12<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, November 24, 2016, Tel-Aviv, Israel.
- 2015 Organizer of digital Journal “*The Israel Chemist and Engineer*”, Issue 1, September 2015, Tishrei 5776, 92 p.
- 2015 Interview “*Chemical Engineering: Not only deal with poisons*”, Newspaper “Globs”, 2-3 April 2015, p. 36. (In Hebrew).
- 2015 Organizer of the seminar “*Will Chemistry Save the World?*” May 31- June 3, 2015, Hotel Daniel, the Dead Sea, Israel.
- 2014 Organizer of the seminar “*Natural Gas and Chemical Industry in Israel*” June 8, 2014, Tel-Aviv, Israel.
- 2014 Organizer of the seminar “*Agrochemistry, Flax and Corrosion*” May 27, 2014, Tel-Aviv, Israel.
- 2014 Member of the Organizing Committee of the 11<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, December 11, 2014, Tel-Aviv, Israel.
- 2014 Chairman of the Organizing Committee of the 2<sup>nd</sup> International Conference “*Science, Technology and Art Relations*” (STAR 2014), 19-20 November 2014, Association of Engineers, Architects and Graduates in Technological Sciences in Israel, Tel Aviv, Israel.



- 2013 Member of the Organizing Committee of the International Conference “Anti-corrosion Protection - a Key to Energy and Environmental Security”, Russian State University of Oil and Gas named after I.M. Gubkin, 3-5 December, 2013, Moscow, Russia.
- 2013 Video speech “I am NACE - Dr. Alec Groysman”.  
<https://www.nace.org/Membership/I-AM-NACE---Dr--Alec-Groysman/>
- 2012 Organizer of the meeting and lecture with professor Dan Shechtman (Nobel Prize Laureate in chemistry 2011) “Unrealities Trust to Nobel Prize”, 19 December 2012, Association of Engineers, Architects and Graduates in Technological Sciences in Israel, Tel-Aviv, Israel.
- 2012 Member of the Organizing Committee of the 10<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, November 1, 2012, Tel-Aviv, Israel.
- 2012 Organizer of the Seminar “Alternative Fuels”, January 14, 2013, ORT Braude College, Karmiel, Israel.
- 2012 Organizer of the Seminar “Soil Pollution – Problems and Solutions”, May 3, 2012, Israeli Association of Engineers and Architects, Tel-Aviv, Israel.
- 2012 Organizer of the Conference “Natural Gas and Chemical Industry in Israel”, March 29, 2012, Israeli Association of Engineers and Architects, Haifa, Israel.
- 2010-2011 Member of the International Scientific Committee of the 4<sup>th</sup> International Scientific Conference “Environmental Degradation of Engineering Materials”, (EDEM 2011), 15-18 May 2011, Gdansk, Poland.
- 2010 Organizer of the Club of Engineers, Scientists and Students (in Honor of Itzhak Shladov), Meeting on the 2nd December, 2010, Tel-Aviv, Israel.
- 2010 Organizer of the Club of Engineers, Scientists and Students, Meeting on the 6th May, 2010, Karmiel, Israel.
- 2010 Organizer of the Club of Engineers, Scientists and Students, Meeting on the 28th January, 2010, Japan Museum, Haifa, Israel.
- 2010-2011 Chairman of the Organizing Committee of the 1<sup>st</sup> International Conference “Art, Science and Technology: Interaction between Three Cultures”, 1-2 June 2011, ORT Braude College, Karmiel, Israel.
- 2010 Member of the Organizing Committee of the 9<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, 12 October 2010, Tel-Aviv, Israel.
- 2009 Member of the Organizing Committee of the 14<sup>th</sup> Israel Materials Engineering Conference, 13-14 December 2009, Tel-Aviv University.
- 2009 Organizer of the Conference “Water Treatment: Problems and Solutions”, 27 May 2009, Oil Refineries Ltd., Haifa.
- 2009 Organizer of the Conference “Corrosion and Environment”, 24 February 2009, ORT Braude College, Karmiel, Israel.
- 2008 Member of the Organizing Committee of the 8<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, 21 May 2008, Technion, Haifa, Israel.
- 2008 Organizer of the Symposium “Protection of Metals and Environment”, 19 March 2008, Tel-Aviv, Israel.
- 2008 Organizer of the Conference “Hot Dip Coatings and Organic Coatings”, 16 December 2008, Akko, Israel.
- 2007 Organizer of the Conference “Development of Chemical and Petrochemical Industry in Israel”, 23 October 2007, Haifa, Israel.
- 2006 Organizer of the Conference “Aboveground Storage Tanks for Fuels and Influence on the Environment”, 29 March 2006, Ramat-Aviv, Israel.

- 2006 Chairman of the Organizing Committee of the 7<sup>th</sup> Israel Conference on Corrosion and Electrochemistry in Commemoration to Dr. Baruch Zinger, 10-11 May 2006, Bar Ilan University, Tel-Aviv, Israel.
- 2005 Organizer of the Conference “Corrosion and the Environment”, 18 April 2005, Haifa, Israel.
- 2005 Organizer of the Conference “Corrosion and Coatings. Coatings and Aesthetics in Industry”, 27 December 2005, Tel-Aviv, Israel.
- 2004 Member of the Organizing Committee of the 6<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, 13 May 2004, ORT Braude College, Karmiel, Israel.
- 2003 Organizer of the Conference “Corrosion Problems and Solutions in Water Systems”, 24 March 2003, ORT Braude College, Karmiel, Israel.
- 2002 Member of the Organizing Committee of the 5<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, 29 May 2002, Tel-Aviv, Israel.
- 2002 Organizer of the Conference “Analysis of Corrosion Failures in Industry, Building and Water Systems”, 13 March 2003, ORT Braude College, Karmiel, Israel.
- 2001 Organizer of the Conference “New Technologies and Materials in Corrosion Control”, 28 February 2001, ORT Braude College, Karmiel, Israel.
- 2000 Organizer of the Conference “Corrosion Problems and Solutions in Industry”, 29 February 2000, Haifa, Israel
- 2000 Member of the Organizing Committee of the 4<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, 17-18 May 2000, Hertzlia, Israel.
- 1998 Member of the Organizing Committee of the 3<sup>rd</sup> Biannual Conference of the Corrosion Forum NACE Israel, 6-7 May 1998, Hertzlia, Israel.
- 1997 Organizer of the Conference “Corrosion and Protection from Corrosion”, February 1997, ORT Braude College, Karmiel, Israel
- 1996 Member of the Organizing Committee of the 2<sup>nd</sup> Biannual Conference of the Corrosion Forum NACE Israel, 17-18 June 1996, Tel-Aviv, Israel.
- 1994 Member of the Organizing Committee of the 1<sup>st</sup> Biannual Conference of the Corrosion Forum NACE Israel, 21 May 1994, Tel-Aviv, Israel.
- 1993 Organizer of the Conference “Corrosion problems and Solutions in Cooling Water Systems”, May 2003, Haifa, Israel.
- 1988 Organizer of the Scientific Practical Conference “Theory and Practice of Protection of Metals from Corrosion”, 30 November - 2 December 1988, Astrakhan, USSR.
- 1977 Organizer of the Scientific Conference of young scientists, 17 June 1977, Astrakhan, USSR.
- 1974 Participation in the organization of the 10<sup>th</sup> International Congress on Soil Sciences and Agro-chemistry, August 1974, Moscow, USSR.

**PLENARY AND INVITED LECTURES AT CONFERENCES:**

1. *Corrosion in Natural Gas Systems: Monitoring, Control and Prevention*, 14<sup>th</sup> Israeli Corrosion Forum Conference, April 5, 2022, Kfar Maccabi, Ramat Gan, Israel.
2. *A fascinating journey into the world of Corrosion: New book “Corrosion: monitoring, control and prevention”*, 14<sup>th</sup> Israeli Corrosion Forum Conference, April 5, 2022, Kfar Maccabi, Ramat Gan, Israel.
3. *A fascinating journey into the world of Corrosion: New book “Corrosion: monitoring,*

- control and prevention*”, 19th Israel Material Engineering Conference IMEC 2021, December 13-14, 2021, Jerusalem, Israel.
4. *Stainless steels in the chemical industry: truth and fiction*, Second International on-line Symposium SCIF “Worldwide congress of Mineral Fertilizers & Pesticides Producers”, November 17-18, 2021, Virtual Keynote Lecture, Russia, Ukraine, and 15 countries.
  5. *Terminology Confusion in Corrosion Science and Engineering*, 2nd International conference “Actual aspects of electrochemistry, corrosion protection and ecology” in memory of Honour Fellow of Science and Technique of Russian Federation, Professor V.I. Vigdorovich, October 27-29, 2021, Tambov, Russia. On-line conference.
  6. *Corrosion, Surface Preparation and Surface Finishing in Industry: History and Future Outlook*, 2nd International conference “Actual aspects of electrochemistry, corrosion protection and ecology” in memory of Honour Fellow of Science and Technique of Russian Federation, Professor V.I. Vigdorovich, and Third International Practical Conference CORRUSCHEM: Modern Technologies of Corrosion Protection in the Chemical and Oil and Gas Industry, October 27-29, 2021, Tambov, Russia. On-line conference.
  7. *Humanitarian Aspects in Corrosion Teaching*, International conference “Surface Treatment and Corrosion Protection” dedicated to the year of science and technology in the Russian Federation and the 100<sup>th</sup> anniversary of higher education at the Russian Chemico-Technological University named after D.I. Mendeleev, September 23, 2021, Moscow, Russia.
  8. *Corrosion risk and process safety in oil and gas, oil refining and petrochemical industries*, the 2<sup>nd</sup> International Conference “Corrosion in Oil and Gas Industry”, Polytechnic University named after Peter the Great, 15-17 September 2021, Saint-Petersburg, Russia.
  9. *Solving complex corrosion issues in seawater filtration* (for Filtersafe company), on-line IMarEST Annual Conference 2021, June 29, 2021, Institute of Marine Engineering, Science and Technology, London, UK.  
<https://imarest.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=5b2a89ed-8afc-4b94-80b8-ad4a018b0acd> (Video Youtube).
  10. *Education in Corrosion*, on-line International Congress “Advanced Materials and Degradation”, June 3, 2021, Fira Barcelona, Spain.  
<https://app.livestorm.co/fira-barcelona/unprecedented-or-am-and-d-int-congress-lifetime-prediction-and-degradation-of-materials-in-chemical-ind/live?s=62e8af39-af2d-49ad-93d2-f55c70c6c9f1#/chat> (Video Youtube).
  11. *Myths about stainless steel*, on-line seminar “Stainless Steel: From Dream to Reality”, April 8, 2021, Fira Barcelona, Spain. <https://www.youtube.com/watch?v=ELvE7LRqW8M> (Video Youtube).
  12. *Corrosion risk and safety at chemical enterprises*, third on-line technical session “Basics of ensuring industrial safety in chemical industries”, February 11, 2021, Virtual Keynote Lecture, Russia, Ukraine, and 15 countries.
  13. *Corrosion management in the production of mineral fertilizers: ammonia, urea, nitric acid and ammonium nitrate*, Second online technical session “Sustainable functioning and promising development of nitrogen fertilizer production enterprises in 2021”, December 10, 2020, Virtual Keynote Lecture, Russia, Ukraine, and 13 countries.
  14. *Corrosion Risk and Process Safety in Oil, Gas, Refining and Petrochemical Industry*, Webinar conference CORRUSCHEM “Modern technologies for corrosion protection in the chemical and oil refining industries”, October 22, 2020, Virtual Keynote Lecture, Saint Petersburg, Russia.
  15. *Terminology Confusion in Corrosion Science and Engineering*, EUROCORR 2020, September 7-11 2020, Virtual Keynote Lecture, Brussel Belgium.

16. *Use of Humanitarian Aspects in Chemistry and Chemical Engineering Education*, International conference “Excellence and Innovation in Chemistry Teaching and Learning, July 6-8 2020, Virtual Plenary Lecture, Weizmann Institute of Science, Rehovot, Israel.
17. *Thermodynamics, Humanities, and Art*, International conference “Thermodynamics 2.0”, June 20-22, 2020, Massachusetts, USA, Virtual lecture. International Association for the Integration of Science and Engineering.
18. *Electrochemistry, Corrosion, Ecology: 220 years together*, International conference “Actual aspects of electrochemistry, corrosion protection and ecology” in memory of Honour Fellow of Science and Technique of Russian Federation, Professor V.I. Vigdorovich, October 23-25, 2019, Tambov, Russia.
19. *Corrosion Problems and Solutions in Oil Refineries and Petrochemical Plants*, Symposium organized by the Czech and Slovak Association of Corrosion Engineers (AKI) within the 21<sup>st</sup> conference *Corrosion and anticorrosion protection of metals*, 24<sup>th</sup> October, 2018, Chodová Planá, Czech Republic.
20. *Corrosion and Surface Treatment in Industry: History and Insight into Future*, International Conference “Corrosion and Surface Treatment in Industry 2018”, 26-28<sup>th</sup> September, 2018, Viglas, Slovakia.
21. *Natural Gas in Israel: Present and Future*, Annual Conference of Israel Association of Science, Computers and Software, November 22-25, 2015, The Dead Sea, Israel.
22. *Methanol as alternative fuel for automobiles*, Expoquimia, Eurosurf, Equiplast, The Mediterranean’s Applied Chemistry Meeting Point, Fira Barcelona, Barcelona, Spain, 30 Sep. - 3 Oct. 2014.
23. *New technology of anti-corrosion protection of tanks, containing crude oil, petroleum products and fuels*, Expoquimia, Eurosurf, Equiplast, The Mediterranean’s Applied Chemistry Meeting Point, Fira Barcelona, Barcelona, Spain, 30 Sep. - 3 Oct. 2014.
24. *Influence of Vernadskiy’s doctrine on modern science, technologies and the humanities*, The International scientific school-conference devoted to the 150<sup>th</sup> anniversary since V. I. Vernadskiy’s birthday “Creative heritage of V. I. Vernadskiy: past, present, future”, Russia, Tambov, March 1-3, 2013.
25. *Past, Present and Future in Corrosion Education (Corrosion and Life)*, The 10<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, Tel-Aviv, Israel, 1 November 2012.
26. *Art, Science and Technology: Interaction between Three Cultures*, The 1<sup>st</sup> International Conference Art, Science and Technology: Interaction between Three Cultures, 1-2 June, 2011, Karmiel, Israel.
27. *Corrosion Monitoring*, Joint EDEMET 2011 Conference: 4<sup>th</sup> International Conference Environmental Degradation of Engineering Materials (EDEM) and 5<sup>th</sup> Conference Materials Engineering and Technologies (COMET), May 16-18, 2011, Gdansk, Poland.
28. *Corrosion Monitoring in Industry*, Israeli Conference on Materials, May 26, 2010, Tel-Aviv, Israel.
29. *Corrosion Monitoring in the Oil Refining Industry*, The International Conference on Corrosion CORCON2009, 28<sup>th</sup> September-1st October 2009, Mumbai, India.
30. *Anti-Corrosion Management and Environment at the Oil Refining Industry*, The International Conference on Corrosion CORCON2005, 28<sup>th</sup>-30<sup>th</sup> November 2005, Chennai, India.
31. *Corrosiveness of Acidic Crude Oil and Its Fractions*, The European Corrosion Conference EUROCORR 2005, Lisbon - Portugal, 4 – 8 September, 2005.

32. *Corrosion is Everywhere*, The 7<sup>th</sup> Israel Conference on Corrosion and Electrochemistry, May 10<sup>th</sup>-11<sup>th</sup> 2006, Bar-Ilan University.
33. *Relationships between Corrosion and Philosophy*, The 6<sup>th</sup> Conference of the Users of Magnesium Technologies, 29<sup>th</sup> March 2004, Technion, Haifa.
34. *Corrosion and Philosophy*, a seminar at the Physical Chemistry Institute of the Academy of Sciences of Russia, Moscow, Russia, April 21, 2003.
35. *Corrosion and Art*, a seminar at the Mendeleev Chemical Technological University, Moscow, Russia, April 17, 2003.
36. *Corrosion of Aboveground Storage Tanks: Identification, Monitoring and Solutions*. Conference "OPSLAGTANKS XIII", 26 – 27 November 2003, Rotterdam, Holland.
37. *Corrosion and Philosophy*, The 5<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, Tel-Aviv, Israel, 29<sup>th</sup> May 2002.
38. *Development and News in Corrosion Protection of Pipes for Fuels*, Conference on Pipes, 2001, Tel Aviv.
39. *Corrosion of Aboveground Storage Tanks for Petroleum Products and Choice of Coating Systems for Their Protection from Corrosion*. IIR Conference "Storage Tanks VIII", Rotterdam, Holland, 30 November-2 December 1998.

### **Presentations at Conferences:**

- 2021 *Corrosion Education in Industry*, The European Corrosion Congress EUROCORR 2021, Budapest, Hungary, 20–24 September 2021.
- 2019 *Corrosion in Energy Systems*, The Energy Conference, 17 June 2019, Ariel University, Ariel, Israel.
- 2019 *The Role of Corrosion Management in Process Safety*, International Conference "Corrosion in oil and gas industry", Saint Petersburg Polytechnic University named after Peter the Great, May 22-24, 2019, St. Petersburg, Russia.
- 2019 *Corrosion and Solutions in Oil Refining and Petrochemical Industry*, International Conference "Corrosion in oil and gas industry", Saint Petersburg Polytechnic University named after Peter the Great, May 22-24, 2019, St. Petersburg, Russia.
- 2018 *Resistance of Materials During the Storage and Transport of Fossil Fuels and Alternative Fuels*, the Conference "Innovation in fuels and their impact on the environment", December 19, 2018, Tel-Aviv, Israel.
- 2018 *The Role of Corrosion Management in Process Safety*, the 13<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, November 8, 2018, Tel-Aviv, Israel.
- 2018 *Corrosion Problems and Solutions in Antifreeze Cooling Systems* (Co-authors: K. Tartakovsky, M. Rabaev), the 13<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, November 8, 2018, Tel-Aviv, Israel.
- 2018 *The Role of Corrosion Management in Process Safety*, The European Corrosion Congress EUROCORR 2018, Krakow, Poland, 9–13 September 2018.
- 2018 *Physicochemical Behavior of Engineering Materials in Ammonia and its Derivatives (Education Example)*, The European Corrosion Congress EUROCORR 2018, Krakow, Poland, 9–13 September 2018.
- 2018 *Corrosion in Energy Systems*, The Energy Conference, 25 June 2018, Ariel University, Ariel, Israel.

- 2018 *Materials in Oil and Gas, Refining and Petrochemical Engineering*, The 53<sup>rd</sup> Annual Meeting of the Israel Institute of Chemical Engineers”, 24 June 2018, Tel Aviv, Israel.
- 2017 *Physicochemical Resistance of Engineering Materials in Ammonia and its Derivatives*, Conference “Ammonia World: New and Old”, 15–16 November 2017, Technion, Haifa, Israel.
- 2017 *Fouling, Corrosion, and Cleaning in Oil Refining and Petrochemical Industry*, 20<sup>th</sup> International Corrosion Congress/EUROCORN 2017/Process Safety Congress 2017, Prague, Czech Republic, 3–7 September 2017.
- 2017 *Water Chemistry for Copper Cooling Systems: Corrosion and Scaling Prevention*, 20<sup>th</sup> International Corrosion Congress/EUROCORN 2017/Process Safety Congress 2017, Prague, Czech Republic, 3–7 September 2017. (Co-author: Gilad Kol).
- 2017 *Corrosion: Pros and Cons*, 20<sup>th</sup> International Corrosion Congress/ EUROCORN 2017/Process Safety Congress 2017, Prague, Czech Republic, 3–7 September 2017.
- 2017 *The Role of Corrosion Management in Prevention of Corrosion Failures*, 20<sup>th</sup> International Corrosion Congress/EUROCORN 2017/Process Safety Congress 2017, Prague, Czech Republic, 3–7 September 2017.
- 2016 *The Role of Corrosion Management in Prevention of Corrosion Failures*, the 12<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, November 24, 2016, Tel-Aviv, Israel.
- 2016 *Corrosion and Corrosion Protection of Tanks Containing Crude Oil, Fuels, and Biofuels*, the 12<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, November 24, 2016, Tel-Aviv, Israel.
- 2016 *Novel Green Corrosion Inhibitors for Aluminum Batteries* (Co-authors: D. Gelman, E. Grishina, S. Belopukhov, D. Starosvetsky, Y. Ein-Eli), the 12<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, November 24, 2016, Tel-Aviv, Israel.
- 2016 *Corrosion Problems and Solutions in Oil Refining and Petrochemical Industry*, The European Corrosion Congress EUROCORN 2016, Montpellier, France, 11–15 September 2016.
- 2016 *Humor in Corrosion Science and Corrosion Education*, The European Corrosion Congress EUROCORN 2016, Montpellier, France, 11–15 September, 2016.
- 2016 *Corrosion and Anti-Corrosion Protection of Tanks for Storage Petroleum Products, Fuels, and Biofuels*, Conference “Tanks” of the Corrosion Forum NACE Israel, March 29, 2016, Tel-Aviv, Israel.
- 2014 *Corrosion in Systems for Transportation and Storage of Petroleum Products and Biofuels*, the 11<sup>th</sup> Biannual Conference of the Corrosion Forum NACE Israel, December 11, 2014, Tel-Aviv, Israel.
- 2014 *Humor in Science, Engineering and Art*, The 2nd International Conference “Science, Technology and Art Relations” (STAR 2014), Tel Aviv, Israel, 19–20 November 2014.
- 2014 *Corrosion in Systems for Transportation and Storage of Petroleum Products and Biofuels* (Keynote lecture), The 19th International Corrosion Congress, Jeju, Korea, 2–6 November, 2014.
- 2014 *Corrosion Education: Present and Future* (Keynote lecture) The 19th International Corrosion Congress, Jeju, Korea, 2–6 November, 2014.

- 2014 *Corrosion in Systems for Transportation and Storage of Petroleum Products and Biofuels*, The European Corrosion Congress EUROCORR 2014, Pisa, Italy, 8–12 September, 2014.
- 2014 *Corrosion Education: Present and Future*, The European Corrosion Congress EUROCORR 2014, Pisa, Italy, 8–12 September, 2014.
- 2013 *Examination of a "Green" Corrosion Inhibitor and Corrosion Resistant Alloys for the Overhead of the Crude Oil Distillation Unit*, NACE International CORROSION 2013 Conference, Orlando, Florida, USA, 17-21 March, 2013.
- 2012 *Abstraction in Art, Science, Technology and Engineering*, XV Generative Art Conference GA2012, December 11-13, 2012, Lucca, Italy.
- 2012 *Examination of a "Green" Corrosion Inhibitor and Corrosion Resistant Alloys for the Overhead of the Crude Oil Distillation Unit*, The 10<sup>th</sup> Biannual Corrosion Conference of the Israel Corrosion Forum, Tel-Aviv, 1 November, 2012.
- 2012 *Alternative Fuels: Present and Future*, The 8<sup>th</sup> Interdisciplinary Research Conference ORT Braude College, October 17-18, 2012, Palm Beach Hotel, Akko.
- 2012 *Corrosion and Life*, The 8<sup>th</sup> Interdisciplinary Research Conference ORT Braude College, October 17-18, 2012, Palm Beach Hotel, Akko.
- 2012 *Past, Present and Future in Corrosion Education (Corrosion and Life)*, The European Corrosion Congress EUROCORR 2012, Istanbul, Turkey, 9–13 September, 2012
- 2012 *Examination of "Green" Corrosion Inhibitors and Corrosion Resistant Alloys for the Overhead of the Crude Oil Distillation Unit*, The European Corrosion Congress EUROCORR 2012, Istanbul, Turkey, 9–13 September, 2012
- 2011 *Use of Art Media in Scientific and Engineering Education*, XIV Generative Art International Conference GA2011, December 5-7, 2011, Rome, Italy.
- 2011 *Use of Art Media in Engineering Education*, The 7<sup>th</sup> ORT Braude Interdisciplinary Research Conference, September 19-20, 2011, Upper Galilee.
- 2011 *How to Teach and Learn Corrosion?* The European Corrosion Congress EUROCORR 2011, Stockholm, Sweden, 4–8 September, 2011
- 2011 *Corrosion of Aboveground Storage Tanks Containing Fuels*, The European Corrosion Congress EUROCORR 2011, Stockholm, Sweden, 4–8 September, 2011
- 2011 *Hydrogen Damage and Prevention in the Oil Refinery*, NACE 2011 Conference, Houston, Texas, USA, 13-17 March, 2011
- 2010 *Corrosion of Aboveground Storage Tanks Containing Fuels*, The 9<sup>th</sup> Biannual Corrosion Conference of the Israel Corrosion Forum, Tel-Aviv, 10 November, 2010
- 2010 *How to Teach and Study Corrosion, or Corrosion for Everybody*, The 9<sup>th</sup> Biannual Corrosion Conference of the Israel Corrosion Forum, Tel-Aviv, 10 November, 2010
- 2010 *Corrosion for Everybody*, The 6<sup>th</sup> Scientific Conference of the College of Engineering ORT Braude, Haifa, 13 October, 2010
- 2010 *Hydrogen Damage, Monitoring, and Prevention in the Oil Refinery*, The European Corrosion Congress EUROCORR 2010, Moscow, Russia, 13–17 September, 2010.
- 2010 *Interdisciplinary Relationships in Corrosion Teaching and Education at School, College and University*, The European Corrosion Congress EUROCORR 2010, Moscow, Russia, 13–17 September, 2010.

- 2010 *Corrosion and Music*, International Festival-Congress *Symmetry Art & Science*, Gmünd, Austria, 23 – 28 August, 2010.
- 2009 *Corrosion Monitoring in the Oil Refining Industry*, The European Corrosion Congress EUROCORR 2009, Nice, France, 6 – 10 September, 2009.
- 2009 *Corrosion and Music*, The 5<sup>th</sup> Scientific Conference of the College of Engineering ORT Braude, 13 October, Nahariya
- 2008 *Naphthenic Acids Combat Naphthenic Acid Corrosion*, The 17<sup>th</sup> International Corrosion Congress, October 6-10, 2008, Las-Vegas, USA, 2008.
- 2008 *Corrosion and Music*, The 17<sup>th</sup> International Corrosion Congress October 6-10, 2008, Las-Vegas, USA, 2008.
- 2008 *Corrosion and Music*, The European Corrosion Congress EUROCORR 2008, Edinburgh, Scotland, 7 – 11 September, 2008.
- 2008 *New Inhibitors for Preventing Naphthenic Acid Corrosion*, The European Corrosion Congress EUROCORR 2008, Edinburgh, Scotland, 7 – 11 September, 2008.
- 2007 *Naphthenic Acid Corrosion Study*, The European Corrosion Congress EUROCORR 2007, Freiburg im Breisgau, Germany, 9 – 13 September, 2007.
- 2006 *Corrosion and quality in the oil refining industry*, The European Corrosion Congress EUROCORR 2006, Maastricht, The Netherlands, 25 – 28 September, 2006.
- 2006 *Corrosion is everywhere*, The European Corrosion Congress EUROCORR 2006, Maastricht, The Netherlands, 25 – 28 September, 2006.
- 2005 *Corrosion for Everybody*, The European Corrosion Congress EUROCORR 2005, Lisbon - Portugal, 4 – 8 September, 2005.
- 2005 Corrosiveness of Acidic Crude Oil and Its Fractions, The European Corrosion Congress EUROCORR 2005, Lisbon - Portugal, 4 – 8 September 2005.
- 2005 “Cultural Aspects in Physical Chemistry Education”, The 70<sup>th</sup> Meeting of the Israel Chemical Society Tel-Aviv, Israel
- 2004 Corrosion and Quality, The 15<sup>th</sup> International Conference of the Israel Society for Quality, November 16-18, 2004, Jerusalem, Israel.
- 2004 Corrosion Problems and their Solutions in the Refining Industry, The European Corrosion Congress EUROCORR 2004, Nice, 12 – 16 September, 2004.
- 2004 Corrosion: Love and Struggle, The European Corrosion Congress EUROCORR 2004, Nice, 12 – 16 September 2004.
- 2003 Humanistic aspects in corrosion education. EUROCORR 2003 – The European Corrosion Congress, September 28 – October 2, 2003, Budapest, Hungary.
- 2002 Corrosion and Philosophy, 15<sup>th</sup> International Corrosion Congress “Frontiers in Corrosion Science and Technology”, Granada (Spain). September 22 to 27, 2002.
- 2001 History of the evolution of knowledge about corrosion. The European Corrosion Congress EUROCORR 2001, Riva del Garda, Italy, September 30 – October 4, 2001.
- 2001 MIC of aluminum alloy floating roofs for storage tanks during hydro-test, The European Corrosion Congress EUROCORR 2001, Riva del Garda, Italy, September 30 – October 4, 2001.
- 2000 Philosophy of Relationship between CORROSION and ART, The European Corrosion Congress EUROCORR 2000, Past Successes – Future Challenges, 10-14<sup>th</sup> September 2000, London.
- 2000 “Corrosion of Storage Tanks with Fuels: Detection and Solutions”, Conference Corrosion of Pipes and Tanks in Industrial Systems, 19 June



- 2000, Ashdod, Israel
- 2000 Analysis of Corrosion Failures in Refinery Equipment, International Conference on Materials Science and Technologies, AGIL 2000, November 8-9, Jerusalem
- 2000 Electrodeposition of Sol-gel Films on Aluminum Substrates for Corrosion Inhibition, International Conference on Materials Science and Technologies, AGIL 2000, November 8-9, Jerusalem
- 2000 Corrosion Science and Technology from the Historical Point of View, The 4<sup>th</sup> Conference of the Corrosion Forum NACE Israel, 17-18 May 2000, Hertzlia, Israel.
- 2000 Study of Corrosiveness of Crude Oil Towards Low Alloy Steels, The 4<sup>th</sup> Conference of the Corrosion Forum NACE Israel, 17-18 May 2000, Hertzlia, Israel.
- 1998 Corrosion of aboveground storage tanks for petroleum products and choice of coating systems for their protection from corrosion, EUROCORR 98, The European Corrosion Congress "Solutions of Corrosion Problems", 28<sup>th</sup> September – 1<sup>st</sup> October 1998, Utrecht, The Netherlands.
- 1998 The study of carbon steel corrosion in the emulsion petroleum product - water. The 3<sup>rd</sup> Conference of the Corrosion Forum - NACE Israel, 6-7 May, 1998, Hertzlia, Israel.
- 1998 Corrosion and art. The 3<sup>rd</sup> Conference of the Corrosion Forum - NACE Israel, 6-7 May, 1998, Hertzlia, Israel.
- 1996 Choice of Coating Systems for the Protection of the Bottoms of Storage Tanks for Petroleum Products, The 2<sup>nd</sup> Conference of the Corrosion Forum - NACE Israel, 17-18 June 1996, Tel-Aviv
- 1996 The Use of SEM & EDS in the Solution of Some Corrosion Problems, The 2<sup>nd</sup> Conference of the Corrosion Forum - NACE Israel, 17-18 June 1996, Tel-Aviv
- 1995 Corrosion research and prevention in water cooling systems at the oil refineries, Annual Conference, Technion, Haifa.
- 1994 Corrosion failures and their causes of the equipment at the oil refineries, Annual Conference, Beer-Sheva University.
- 1994 Examination of Dispersants for water cleaning from oil deterioration, Annual Conference, Beer-Sheva University.
- 1994 Corrosion Monitoring at the Oil Refineries Units, The 1<sup>st</sup> Conference of Corrosion Forum NACE Israel, 16-17.4.94, Tel-Aviv.
- 1994 Corrosion resistance of alloys used as artificial teeth, The 1<sup>st</sup> Conference of Corrosion Forum NACE Israel, 16-17.4.94, Tel-Aviv.
- 1993 Study of Anticorrosion Properties of Metal Arc - Sprayed Coatings on Carbon Steel for Use in Petroleum Products, The 12<sup>th</sup> International Corrosion Congress, 19-24 September 1993, Houston, Texas, USA.
- 1994 Examination of efficiency of solvents for cleaning heat exchangers from crude oil fouling, Annual Conference, Tel-Aviv University.
- 1989 Inhibitive properties of hydrolytic-yeast industry wastes, All-Union Conference "Physico-Chemical Basics of Activity of Corrosion Inhibitors", 16-19 October 1989, Moscow.
- 1989 Inhibitive properties of some peroxide compounds, All-Union Conference "Physico-Chemical Basics of Activity of Corrosion Inhibitors", 16-19 October 1989, Moscow.
- 1988 The study of kinetics of the evaporation of VPI (vapor-phase

- inhibitors), The 5<sup>th</sup> Omsk Regional Scientific-Practical Conference “Corrosion and Protection of Metals”, 18-20 May 1988, Omsk.
- 1988 The study of the inhibitive properties of the nitrite dicyclohexylamine and ammonium carbonate, The 2<sup>nd</sup> Inter-Regional Scientific-Practical Conference “Theory and Practice of Protection of Metals from Corrosion”, 30 November - 2 December 1988, Astrakhan.
- 1988 The use of organic and inorganic compounds for the inhibiting protection of pipelines and tanks with aqueous electrolyte solutions, The 2<sup>nd</sup> Inter-Regional Scientific-Practical Conference “Theory and Practice of Protection of Metals from Corrosion”, 30 November - 2 December 1988, Astrakhan.
- 1988 The study of the protective properties of corrosion inhibitor mixtures in the wastes, All-Union Scientific-Technical Conference “Struggle with Corrosion”, 15-17 June 1988, Kirishi.
- 1988 The use of metal arc-spray and combined coatings for the anticorrosion protection of the petroleum product storage tanks, All-Union Scientific-Technical Conference “Struggle with Corrosion”, 15-17 June 1988, Kirishi.
- 1987 The use of anticorrosive powder of the lignines waste, Scientific-Technical Conference, Gorky.
- 1987 The study of the inhibitive properties of borate substances in the aqueous salt solutions, Conference “Chemistry and technology of inorganic compounds of boron”, Riga.
- 1987 The thermodynamics of oxygen solutions in water and aqueous electrolyte media, The 3<sup>rd</sup> All-Union Conference “Absorption of Gases”, Tallinn.
- 1986 The use of rust modifiers (surface tolerant coatings) in the electrical conductive paint systems resistant in the petroleum products, The 2<sup>nd</sup> All-Union Scientific –Practical Conference “Painting on Rust - 86”, Khotkovo.
- 1986 The use of rust modifiers (surface tolerant coatings) in the water- and atmosphere-resistant paint systems, Seminar, Penza.
- 1984 The study of corrosion kinetics of some metals and alloys in petroleum products, The 2<sup>nd</sup> All-Union Symposium “Electrochemistry and Corrosion of Metals in Water-Organic Media”, Rostov-na-Donu.
- 1982 The use of potassium peroxoborate and sodium tetraborate as corrosion inhibitors of mild steel in neutral solutions of electrolytes, Scientific-Practical Conference, Gorky.
- 1982 The study of inorganic phosphate efficiency for the protection of pipelines and tanks in contact with wastes, Scientific-Practical Conference, Kuibishev.
- 1982 The study of the protective properties of some paint systems with rust converters in wastes, Scientific-Practical Conference, Gorky, USSR.
- 1981 The experimental study of the solubility of oxygen in some aqueous electrolyte solutions and their mixtures, Conference “Perspectives of Development of Researches in Natural Sciences in West Ural”, Perm, USSR.
- 1981 Some physico-chemical characteristics of paint films, Conference “New Protective-Decorative Paints and Coatings”, Leningrad, USSR.
- 1981 The choice of coating systems for the protection of steel structures from corrosion in wastes, Scientific-Practical Seminar, Chelyabinsk, USSR.

## COLLOQUIUM AND SEMINAR LECTURES:

- 2019 Seminar of the Department of Materials Engineering, University of British Columbia, Lecture “*Corrosion in Our Life*”, September 26, 2019, Vancouver, Canada.
- 2019 Course “Uses and Compositions of Fossil Fuels” in the Israel Institute of Energy and Environment, Lecture “*Corrosion in Oil and Natural Gas Production Systems*”, April 3, 2019, Ramat Aviv, Israel.
- 2019 Public lecture “*Corrosion Problems and Solutions in Oil, Gas, Refining and Petrochemical Industries*”, March 26, 2019, Astrakhan State Technical University, Russia.
- 2019 The 18<sup>th</sup> Israeli – Russian Bi-National Workshop, Lecture “*Corrosion: Problems, Solutions, Problems ...*”, 17-22 February, 2019, Ein Bokek, Israel.
- 2019 Seminar of the Department of Chemical Engineering, Biotechnology and Materials, Ariel University, Lecture “*Why Should Chemical Engineers Learn Corrosion?*” January 6, 2019, Ariel, Israel.
- 2018 Seminar of Scientific Committee in the Israel Institute of Energy and Environment, Lecture “*Inner Corrosion in Natural Gas Systems: Control and Monitoring*”, June 18, 2018, Ramat Aviv, Israel.
- 2018 Public lecture “*Natural Gas*”, April 22, 2017, High School named after al-Khwārizmī, Tamra, Israel.
- 2018 Course “Uses and Compositions of Fossil Fuels” in the Israel Institute of Energy and Environment, Lecture “*Corrosion in oil and natural gas products*”, March 12, 2018, Ramat Aviv, Israel.
- 2017 TED (Technology, Entertainment, Design), Lecture “*Corrosion in Our Life*”, December 9, 2017, Shekhaniya, Misgav, Israel.
- 2017 Seminar of the Department of Chemical Sciences, Ariel University, Lecture “*Corrosion in Our Life*”, November 22, 2017, Ariel, Israel.
- 2017 Seminar of Scientific Committee in the Israel Institute of Energy and Environment, Lecture “*Corrosion in Natural Gas Systems: Problems, Solutions, Control, and Monitoring*”, October 31, 2017, Ramat Aviv, Israel.
- 2017 Public lecture “*Corrosion in Our Life*”, June 6, 2017, University of Canterbury, Christchurch, New Zealand.
- 2017 ACA New Plymouth Meeting (Australasian Corrosion Association), New Zealand branch. Lecture “*Corrosion Management and Engineering in the Oil and Gas Industry*”, May 30, 2017, New Plymouth, New Zealand.
- 2017 ACA Wellington Meeting (Australasian Corrosion Association), New Zealand branch. Lecture “*Prevention of Corrosion Failures*”, May 29, 2017, Wellington, New Zealand.
- 2017 Seminar at the Mechanical Engineering Department, University of Canterbury, New Zealand, The lecture “*The Role of Corrosion Management in Prevention Corrosion Failures*”, March 30, 2017, University of Canterbury, Christchurch, New Zealand.
- 2016 Seminar “Science, Technology and What is Between Them”, The lecture “*Natural Gas: Science and Technological Development*”, November 13-16, 2016, Hotel Daniel, the Dead Sea, Israel. Israeli Association of Engineers and Architects, Tel-Aviv, Israel.
- 2016 Seminar “Technologies: Pros and Cons”, Lecture “*Use of Humor in Engineering and Scientific Education*”, June 5-8, 2016, Hotel Isrotel, the Dead Sea, Israel. Israeli Association of Engineers and Architects, Tel-Aviv, Israel.

- 2015 Seminar of Scientific Committee in the Israel Institute of Energy and Environment, Lecture "*Use of Humor in Engineering and Scientific Teaching, and in Life*", November 11, 2015, Ramat Aviv, Israel.
- 2015 Seminar "Will Chemistry Save the World?", Lecture "*Use of Humor in Engineering Education*", May 31 - June 3, 2015, Hotel Daniel, the Dead Sea, Israel. Israeli Association of Engineers and Architects, Tel-Aviv, Israel.
- 2015 EFC WP15 Committee "Refining Industry Corrosion", Two lectures "Failures – why they occur and how to prevent them?" and "Corrosion education in refining and petrochemical industry", 14 April 2015, NALCO, Leiden, The Netherlands.
- 2014 Committee "Energy", Lecture "Natural Gas as the Base for Chemical Industry", 24 June 2014, Neaman Institute, Technion, Haifa, Israel.
- 2014 Conference "Natural Gas and Chemical Industry in Israel", Lecture "*Corrosion Problems and Solutions in Natural Gas Systems*", 8 June 2014, Israeli Association of Engineers and Architects, Tel-Aviv, Israel.
- 2014 Lecture "*Corrosion in Systems for Storage and Transportation of Petroleum Products and Biofuels*", 24 March 2014, Seminar at the Institute of Technology, Faculty of Manufacturing Technology, Prague, Czech Republic.
- 2014 Lecture "*Corrosion in Systems for Storage and Transportation of Petroleum Products and Biofuels*", 12 March 2014, Seminar at the Israeli Institute of Energy and Environment, Scientific Committee, Ramat Aviv, Israel.
- 2013 Lecture "*Corrosion of Storage Tanks for Petroleum Products: Identification, Monitoring and Solutions*", 25 March 2013, Seminar at the Institute of Technology, Faculty of Manufacturing Technology, Prague, Czech Republic
- 2012 Lecture "*Corrosion and Art*", 6 December 2012, Seminar at the Institute of Chemical Technology, Faculty of Materials and Corrosion, Prague, Czech Republic
- 2012 Seminar "Corrosion and News in Stainless Steel", lecture "*Past, Present and Future of Stainless Steel*", 5 September 2012, Corrosion Engineers, Materials and Pipes Ltd., Tel-Aviv, Israel
- 2012 Conference "Researches Development in Engineering Education in Academy", Lecture "*Use of Humanitarian Disciplines in Engineering and Scientific Education*", 29 May 2012, ORT Braude College of Engineering, Karmiel, Israel
- 2012 Conference "Titanium in Industry", Lecture "*The Experience of Use of Titanium in The Oil Refining Industry*", 22 May 2012, Israeli Association of Engineers and Architects, Tel-Aviv, Israel
- 2011 Seminar in Memory of Rafael Seroussi, lecture "Corrosion and Music", Israeli Association of Engineers and Architects, 11 September 2011, Tel-Aviv
- 2010 Seminar "International Scientific-Technological Cooperation - 2010", The Union of Scientific and Engineering Associations (Russia), 5 May 2010, Tel-Aviv
- 2010 Seminar "News in Corrosion – Presentation of the book Corrosion for Everybody", Israeli Association of Engineers and Architects, 3 March, 2010, Tel-Aviv
- 2010 Seminar "Failure Analysis", 15 February, 2010, Elbit, Haifa
- 2006 Seminar "Philosophical Relationships between Corrosion and Art", College, Ariel
- 2005 Seminar "Corrosion and Failure of Materials", Tel-Aviv, Israel
- 2004 Seminar "News in Corrosion Control in Europe" (EUROCORR 2004), Tel-Aviv
- 2004 Seminar "Corrosion and Philosophy", Tel-Aviv University, Tel-Aviv
- 2004 Seminar "Corrosion and Philosophy", ORT Braude College, Karmiel
- 2003 Seminar "Developments in Corrosion Control in Europe" (EUROCORR 2003), Tel-Aviv
- 2001 Seminar "The Philosophy of Relationship between Corrosion and Art",

- ORT Braude College, Karmiel
- 2000 “Corrosion and Art”, an Electrochemical Seminar at the Tel-Aviv University, Tel-Aviv, Israel
- 2000 “Corrosion and Art”, a seminar at the Bar-Ilan University, Tel-Aviv, Israel
- 2000 Electrochemical Week in Honour of Professor Eliezer Giladi Tel Aviv University
- 1999 Seminar “Corrosion Monitoring in Chemical Industry”, Chemada, Beer-Sheva, Israel
- 1999 Seminar “Corrosion and Art”, Technion, Haifa, Israel
- 1998 Seminar “Use of SEM & EDS in Corrosion Investigation”, Technion, Haifa, Israel
- 1998 Seminar “Theory of Corrosion and Corrosion Control in Chemical Industry”, Chemada, Beer-Sheva, Israel

#### **REVIEWER:**

1. Journal “Materials Research” – since 2011.
2. Bentham Science Publishers – since 2010.
3. Journal “Corrosion Review” – since 2010.
4. Journal “Fuel” – since 2006.
5. Journal “Applied Biochemistry and Biotechnology” – since 2006.
6. Handbook of Petroleum and Natural Gas Refining and Processing, ASTM Manual 58, Chapter 15: Corrosion Inspection and Control in Refinery, 2007.
7. Journal “Industrial & Engineering Chemistry Research” – since 2010.
8. Journal “Recent Patent on Corrosion Science” – since 2012.
9. Journal “Nondestructive Testing and Evaluation” – since 2012.
10. Gasathj (Generative Art, Science and Technology Hard Journal) – since 2011.
11. SN Applied Sciences, Springer Nature – since 2019.
12. IntechOpen – since 2019.
13. AMPP (NACE) Corrosion Conference 2022, USA, Session “Corrosion Management”.

#### **LIST OF PUBLICATIONS**

**Dr. Alec Groysman**

**March 2023**

**Ph. D. Thesis:** *Influence of Temperature on Solubility of Oxygen and its Chemical Interaction with Mild Steel in Aqueous Solutions of Salts*, Chemico-Technological University named after Mendeleev, Moscow, USSR, 1983 (in Russian).

#### **Peer-Reviewed Papers:**

1. Cleaning Oil Refining and Petrochemical Process Equipment, *Materials Performance*, February 2018, Vol. 57, No. 2, pp. 40 - 43.
2. E. Grishina, D. Gelman, S. Belopukhov, D. Starosvetsky, A. Groysman, Yair Ein-Eli, Improvement of Aluminum-Air Battery Performances by the Application of Flax Straw Extract, 28 Jul 2016, Wiley-VCH Verlag GmbH&Co. KGaA, Weinheim, ChemSusChem, 2016, **9**, pp. 2103-2111. Wiley Online Library, <http://onlinelibrary.wiley.com/wo11/doi/10.1002/cssc.201600298/full>
3. Corrosion Education in Oil and Gas Industry: Experience and Insight into the Future, *Corrosion, Materials and Protection*, 2014, No. 4, pp. 1-13. (In Russian).

4. Corrosion and Protection from Corrosion of Tanks Containing Liquid Fuels (Koroze a Ochrana Proti Korozi Zásobníku na Kapalná Paliva), *MM Průmyslové spectrum (Industrial Spectrum)*, 2013, No. 5, pp. 18-19 (In Czech).
5. Corrosion and Materials in the World of Crude Oil and Fuels (Part 2), Journal “*Newsletters*”, Israeli Institute of Energy and Environment, 2013, March, No.346, pp.16-18 (In Hebrew).
6. *Influence of Vernadskiy’s doctrine on modern science, technologies and the humanities*, Tambov University Reports, A Journal of Tambov State University, A Theoretical and Applied Scientific Journal, Series: Natural and Technical Sciences, Volume 18, Issue 2, 2013, pp. 501-512 (In Russian).
7. Corrosion and Materials in the World of Crude Oil and Fuels (part 1), Journal “*Newsletters*”, Israeli Institute of Energy and Environment, 2012, December, No.345, pp.24-26 (In Hebrew).
8. Alec Groysman and Rafi Siso, Corrosion of Aboveground Storage Tanks Containing Fuels, *Materials Performance*, 2012, Vol. 51, No. 2, pp. 52-56.
9. Corrosion: against us or for us, Journal “*About Chemistry*”, Weizmann Institute, 2010, No.16, February, pp.6-13 (In Hebrew).
10. Sergio Meth, Alec Groysman, Natali Savchenko, Maxim Koltypin, David Starosvetsky, Federico A. Viva, Chaim N. Sukenik, Corrosion studies of stainless steel protected by a TiO<sub>2</sub> thin film deposited on a sulfonate-functionalized self-assembled monolayer, *Corrosion Science*, 2010, Vol. 52, pp. 125-129.
11. Corrosion Monitoring, *Corrosion Reviews*, 2009, Volume 27, Nos. 4-5, pp. 205-343.
12. Alec Groysman and Naphtali Brodsky, *Corrosion and Quality, Accreditation and Quality Assurance: Journal for Quality, Comparability and Reliability in Chemical Measurement*, Publisher: Springer Berlin / Heidelberg, February 2006, Vol.10, No. 10, pp. 537-542.
13. Combatting corrosion in refineries, *Stainless Steel World*, Vol. 17, October 2005, p. 67.
14. Anticorrosion Technique for Aboveground Storage Tanks, *Materials Performance*, November 2005, Vol. 44, No. 11, pp. 40 - 43.
15. Corrosion of Aboveground Fuel Storage Tanks, *Materials Performance*, September 2005, Vol. 44, No. 9, pp. 44 - 48.
16. A. Groysman, N. Brodsky, J. Penner, A. Goldis, and N. Savchenko, Corrosiveness of Acidic Crude Oil and Its Fractions, *Materials Performance*, April 2005, Vol. 44, No. 4, pp. 34 - 39.
17. A. Groysman, O. Groysman and K. P. Paschenko, Study of inhibitive properties of wastes of hydrolysis-yeast production, *Vestnik of Astrakhan State Technical University*, Vol. 4 (23), 2004, November-December, pp. 35-40. (In Russian).
18. Mari Sheffer, Alec Groysman, David Starosvetsky, Natali Savchenko and Daniel Mandler, Anion embedded sol-gel films on Al for corrosion protection, *Corrosion Science*, 46 (2004), pp. 2975 – 2985.
19. Mari Sheffer, Daniel Mandler, and Alec Groysman, Electrodeposition of Sol-Gel Films on Al for Corrosion Protection, *Corrosion Science*, 2003, 45, pp. 2893-2904.
20. J. Starosvetsky, R. Armon, A. Groysman, and D. Starosvetsky, MIC of Storage Tank Aluminum Floating Roofs During Hydrotest, *Materials Performance*, April 2002, Vol. 41, No. 4, pp. 50-54.
21. Alec Groysman and Natasha Erdman, A Study of Corrosion of Mild Steel in Mixtures of Petroleum Distillates and Electrolytes, *Corrosion*, 2000, Vol. 56, No. 12, pp. 1266-1271.
22. A. Groysman, A. Kaufman, B. Feldman, Y. Man, Cavitation Corrosion in a Continuous Catalytic Reformer Unit, *Materials Performance*, 2000, Vol. 39, No. 6, pp. 62-66.

23. Jeana Starosvetsky, Robert Armon, Alec Groysman, and David Starosvetsky, Fouling of Carbon Steel Heat Exchanger Caused by Iron Bacteria, *Materials Performance*, 1999, Vol. 38, No.1, pp. 55-61.
24. A. Groysman and N. Khomutov, The solubility of oxygen in the aqueous electrolyte solutions (Review), *Uspechi chimii (Successes of Chemistry)*, 1990, Vol.59, No. 8, pp. 1217-1250 (In Russian).
25. Alec Groysman and Lev Freidin, Electrode potentials of one-compound and multi-compound steel dentures and their corrosion characteristics, *Stomatology*, 1989, No.1, pp. 66-71 (In Russian).
26. Methods of determination of oxygen in liquids (Review), *Journal of Analytical Chemistry*, 1989, Vol. 44, No. 12, pp. 2133-2147 (In Russian).
27. Anticorrosion protection of the petroleum product storage tanks, *Neftepererabotka i Neftechimiya (Treatment of Crude Oil and Oil Chemistry)*, 1989, No. 5, pp. 40-44 (In Russian).
28. The influence of sodium silicate corrosion inhibitor on the purification of sewage, *Neftepererabotka i Neftechimiya (Treatment of Crude Oil and Oil Chemistry)*, 1989, No.1 (In Russian).
29. The study of the anticorrosive properties of the arc-metal spray coatings, *Transport i khraneniye nefteproduktov i uglevodorodnogo sirya (Transport and Storage of Petroleum Distillates and Hydrocarbons)*, 1988, No. 3, pp. 12-16 (In Russian).
30. The problem of the calculation of the salting-out coefficients of oxygen for the individual ions, Dep. VINITI No. 6818-B86 (All-Union Institute of Scientific and Technological Information), 12 p. (In Russian).
31. The salting-out coefficients of oxygen from the aqueous electrolyte solutions, Dep. VINITI No. 6214-86, 13 p. (In Russian).
32. The protection of steel constructions from the waste's influence, *Lacokrasochniye materialy i ikh primeneniye (Paint Materials and their Use)*, 1987, No. 5, pp. 63-65 (In Russian).
33. The problems of anticorrosion protection in petrochemical and refining industry, *Transport i khraneniye nefteproduktov i uglevodorodnogo sirya (Transport and Storage of Petroleum Distillates and Hydrocarbons)*, 1987, No. 4, pp. 8-10 (In Russian).
34. The organic corrosion inhibitors of mild steel, *Zaschita Metallov (Protection of Metals)*, 1987, Vol. 23, No.1, pp.164-166 (In Russian).
35. The anticorrosion protection of the strips for the tanks' support, *Lacokrasochniye materialy i ikh primeneniye (Paint Materials and their Use)*, 1986, No. 5, pp. 64-66 (In Russian).
36. The inhibitive properties of the complexones in wastes, *Zaschita Metallov (Protection of Metals)*, 1985, Vol. 21, No.2, pp. 304-306 (In Russian).
37. Corrosion inhibitors of mild steel in wastes, *Transport i khraneniye nefteproduktov i uglevodorodnogo sirya (Transport and Storage of Petroleum Distillates and Hydrocarbons)*, 1984, No. 5, pp. 15-19 (In Russian).
38. Thermodynamics of oxygen solubility in aqueous solutions, *Zurnal Physicheskoi Khimii (Journal of Physical Chemistry)*, 1984, Vol. 58, No. 7, p.1776 (In Russian). Translated into English.
39. The experimental study of temperature influence on oxygen solubility in aqueous electrolyte solutions, *Zurnal Physicheskoi Khimii (Journal of Physical Chemistry)*, 1984, Vol. 58, No. 3, p. 723 (In Russian). Translated into English.
40. The influence of corrosion inhibitors on the purification of wastes, *Transport i khraneniye nefteproduktov i uglevodorodnogo sirya (Transporting and Storage of Petroleum Distillates and Hydrocarbons)*, 1983, No. 1, pp. 34-39 (In Russian).

41. The study of the efficiency of corrosion inhibitors for the protection of pipelines and tanks with wastes, *Transport i khraneniye nefteproduktov i uglevodorodnogo sirya (Transporting and Storage of Petroleum Distillates and Hydrocarbons)*, 1983, No. 2, pp. 19-22 (In Russian).
42. The relationship of kinetic parameters interaction of steel and aqueous electrolyte solutions, Dep. VINITI No. 1567-83 (In Russian).
43. Thermodynamics of oxygen solubility in aqueous solutions of Na<sub>2</sub>CO<sub>3</sub> and Na<sub>3</sub>PO<sub>4</sub>, Dep. VINITI No. 1644-83 (In Russian).
44. The salting-out of oxygen from aqueous solutions of Na<sub>2</sub>CO<sub>3</sub> and Na<sub>3</sub>PO<sub>4</sub> at different temperatures, Dep. VINITI No. 1566-83 (In Russian).
45. The solubility of oxygen in the aqueous solutions of electrolytes at various temperatures, In: *Problemi termodinamiki rastvorov (Problems of Thermodynamics of Solutions)*, Mezschvuzovski Sbornik No. 2, Vol. 121, Moscow, 1982, pp.136-143 (In Russian).

### **Conference Peer-Reviewed Papers:**

1. *The Role of Corrosion Management in Prevention of Corrosion Failures*, Paper No. 7252, NACE International 2016 Conference, 6-10 March 2016, Vancouver, Canada, 15 p.
2. *Corrosion in Systems for Transportation and Storage of Petroleum Products and Biofuels*, Paper No. 5455, NACE International 2015 Conference, 16-21 March 2015, Dallas, Texas, USA, 16 p.
3. Alec Groysman, Joseph Penner, Liran Mizrahi, and Naphtali Brodsky, *Examination of a "Green" Corrosion Inhibitor and Corrosion resistant Alloys for the Overhead of the Crude Oil Distillation Unit*, Paper No. 2134, NACE International 2013 Conference, 17-21 March 2013, Orlando, Florida, USA, 13 p.
4. Use of Art Media in Scientific and Engineering Education, Gasathj (Generative Art, Science and Technology Hard Journal), 2012, Issue No.1, pp. 54-60, Publisher Domus Argenia, Sardinia, Italy. [www.gasathj.com](http://www.gasathj.com).
5. Art, science and technology: interaction between three cultures, In: Proceedings of the 1<sup>st</sup> International Conference "Art, Science and Technology: Interaction Between Three Cultures", 1-2 June, 2011, ORT Braude College, Karmiel, Israel, Domus Argenia Publisher, Milano, Italy, 2012, pp. 1-8.
6. Groysman A, Kaufman A, Feldman B, Balali R, *Hydrogen Damage and Prevention in the Oil Refinery*, Paper No. 11295, NACE International 2011 Conference, 13-17 March 2011, 15 p.
7. Corrosion of Aboveground Storage Tanks: Identification, Monitoring and Solutions, Paper 08665, *CORROSION 2008*, New Orleans, USA, 16-21 March 2008, 17 p.
8. Low Temperature Naphthenic Acid Corrosion Study, Paper 07569, *CORROSION 2007*, Nashville, USA, 11-15 March 2007, 20 p.
9. A. Groysman and I. Shvarts, Study of Efficiency of Industrial Corrosion Inhibitors for Cooling Water Systems at Oil Refining Industry, Paper 06097, *CORROSION 2006*, San Diego, California, USA, 12-16 March 2006, 10 p.
10. Study of Corrosiveness of Acidic Crude Oil and its Fractions, Paper 05568, *CORROSION 2005*, Houston, Texas, USA, 2- 7 April 2005, 13 p.
11. Alec Groysman and Natasha Erdman, Corrosion and Protection of Mild Steel in Mixture Petroleum Product – Electrolyte, Paper No. 140, The 54<sup>th</sup> Conference NACE *CORROSION/99*, San Antonio, Texas, USA, April 25-30, 1999, 12 p.



12. An Investigation into the Protective Properties of a VCI Modified Acrylic Film for Protective Steel Applications. Paper No. 240, *CORROSION/98*, San-Diego, USA, 1998, 11p.
13. Corrosion Monitoring and Control in Refinery Process Units. Paper No. 512, *CORROSION/97*, New Orleans, USA, 1997, 25 p.
14. Corrosion Cases, Their Analysis and Solutions in the Oil Refinery, Paper No. 335, *CORROSION/95*, Orlando, USA, 1995, 12 p.
15. Protection of Structures from Corrosion in Wastes. Paper No. 240. *CORROSION/92*, Nashville, Tennessee, 1992, 12 p.
16. A. Groysman and T. Kravchuk, Influence of Peroxocompounds on Corrosion of Mild Steel and Admiralty Brass in Aqueous Solution. *Reviews in Analytical Chemistry* (Special Issue Proceedings of the Israel Electrochemical Society Symposium June 13, 1999); 1999, Vol.18, No.5, pp. 285-292.

#### **BOOKS AND CHAPTERS OF BOOKS:**

1. *Corrosion: Monitoring and Control*, Textbook, Israeli Institute of Energy and the Environment, Ramat-Aviv, Israel, 2023, 756 p. (In Hebrew).
2. *Non-Destructive Testing and Corrosion Monitoring* (pp. 261-409, Chapter in the book *Non-Destructive Evaluation of Corrosion and Corrosion-assisted Cracking*, Edited by Raman Singh et al., Publisher John Wiley & Sons, Hoboken, New Jersey, 2019, 448 p).
3. *Introduction and Chapter "Corrosion in Natural Gas Systems"*, in the book "Natural Gas", Eds: Moshe Rabaev and Keren Gol, Israeli Institute of Energy and Environment, Israel, 2017, pp. 367-427 (in Hebrew).
4. *Corrosion Problems and Solutions in Oil Refining and Petrochemical Industry*, Springer, Dordrecht, 2017, 370 p.
5. *Corrosion in Systems for Transportation and Storage of Petroleum Products and Biofuels*, Springer-Verlag, Dordrecht, 2014, 297 p.
6. *Corrosion in Systems with Petroleum Products*, in the book "Crude Oil and its Products", Editor: Moshe Rabaev, Israeli Institute of Energy and Environment, Israel, 2012, pp. 247-295 (in Hebrew).
7. *Corrosion for Everybody*, Springer-Verlag, Dordrecht, 2010, 368 p.
8. *Corrosion of aboveground storage tanks for petroleum distillates and choice of coating systems for their protection from corrosion*, In: *Corrosion in refineries*, Edited by J.D. Harston and F.Ropital, European Federation of Corrosion Publications Number 42, CRC Press, Woodhead Publishing Limited, Cambridge England, 2007, pp. 79-85.
9. *Corrosion Monitoring in Industry*, In: *Corrosion Science and Technology*, Editors: U. Kamachi Mudali, Baldev Raj, Narosa Publishing House, New Delhi, India, 2008, pp. 500-550.
10. *Aesthetic, philosophical and historical aspects in the Physical Chemistry education*, In: *Trends in Electrochemistry and Corrosion at the Beginning of the 21<sup>st</sup> Century*, Dedicated to Professor Dr. Josep M. Costa on the occasion of his 70<sup>th</sup> birthday, Editors: Enric Brillas, Pere-Lluis Cabot, Publicacions Universitat de Barcelona, 2004, pp. 1203 – 1225.
11. *Rust Color Space*, In: *The Swan Song*, Rafi Peled and Yoram Reshef, The Museum of Israeli Art, Ramat Gan, 2014, pp. 3, 171-173.

## **EDITED PROCEEDINGS AND MAGAZINES:**

1. Proceedings of the 2<sup>nd</sup> International Conference “*Science, Technology and Art Relations*” (STAR 2014), 19-20 November, 2014, Tel Aviv, Israel, ISBN 978-965-92447-0-6, 2015, 270 p.
2. Proceedings of the 1<sup>st</sup> International Conference “*Art, Science and Technology: Interaction between Three Cultures*”, 1-2 June, 2011, Karmiel, Israel, Domus Argenia Publisher, Milano, Italy, 2012, 211 p.
3. Proceedings of the 2<sup>nd</sup> Inter-Regional Scientific-Practical Conference “*Theory and Practice of Protection of Metals from Corrosion*”, 30 November -2 December 1988, Astrakhan, 1988 (in Russian).

## **Conference Proceedings (non-referred)**

1. *Physicochemical Behavior of Engineering Materials in Ammonia and its Derivatives (Education Example)*, The European Corrosion Congress EUROCORR 2018, Krakow, Poland, 9–13 September 2018, 18 p.
2. *Fouling, Corrosion, and Cleaning in Oil Refining and Petrochemical Industry*, 20<sup>th</sup> International Corrosion Congress/EUROCORR 2017/Process Safety Congress 2017, Prague, Czech Republic, 3–7 September 2017.
3. *Water Chemistry for Copper Cooling Systems: Corrosion and Scaling Prevention*, 20<sup>th</sup> International Corrosion Congress/EUROCORR 2017/Process Safety Congress 2017, Prague, Czech Republic, 3–7 September 2017. (Co-author: Gilad Kol).
4. *Corrosion: Pros and Cons*, 20<sup>th</sup> International Corrosion Congress/EUROCORR 2017/Process Safety Congress 2017, Prague, Czech Republic, 3–7 September 2017.
5. *Corrosion Problems and Solutions in Oil Refining and Petrochemical Industry*, The European Corrosion Congress EUROCORR 2016, Montpellier, France, 11–15 September, 2016, 14 p.
6. *Humor in Corrosion Science and Corrosion Education*, The European Corrosion Congress EUROCORR 2016, Montpellier, France, 11–15 September, 2016, 11 p.
7. *Humor in Science, Technology and Art*, In: Proceedings of the 2<sup>nd</sup> International Conference “*Science, Technology and Art Relations*” (STAR 2014), 19-20 November, 2014, Tel Aviv, Israel, ISBN 978-965-92447-0-6, 2015, pp. 97-118.
8. *Corrosion in Systems for Transportation and Storage of Petroleum Products and Biofuels*, The 19th International Corrosion Congress, Jeju, Korea, 2–6 November, 2014, 10 p. Book of Abstracts, p. 57.
9. *Corrosion Education: Present and Future*, The 19th International Corrosion Congress, Jeju, Korea, 2–6 November, 2014, 10 p. Book of Abstracts, p. 28.
10. *Corrosion in Systems for Transportation and Storage of Petroleum Products and Biofuels*, The European Corrosion Congress EUROCORR 2014, Pisa, Italy, 8–12 September, 2014, 10 p. Book of Abstracts, p. 466.
11. *Corrosion Education: Present and Future*, The European Corrosion Congress EUROCORR 2014, Pisa, Italy, 8–12 September, 2014, 10 p. Book of Abstracts, p. 221.
12. *Corrosion education in oil and gas industry: experience and look into the future*, The International conference “*Anti-corrosion Protection - a Key to Energy and*

- Environmental Security”, Russian State University of Oil and Gas named after I.M. Gubkin, Russia, Moscow, December 3-5, 2013, 18 p., Book of Abstracts, p. 8.
13. *Abstraction in Art, Science, Technology and Engineering*, Proceedings of XV Generative Art Conference GA2012, Edited by Celestino Soddu, Domus Argenia Publisher, December 11-13, 2012, 22 p., Lucca, Italy.
  14. *Past, Present and Future in Corrosion Education (Corrosion and Life)*, The European Corrosion Congress EUROCORR 2012, Istanbul, Turkey, 9–13 September, 2012, 16 p., Book of Abstracts, p. 127.
  15. *Examination of "Green" Corrosion Inhibitors and Corrosion Resistant Alloys for the Overhead of the Crude Oil Distillation Unit*, The European Corrosion Congress EUROCORR 2012, Istanbul, Turkey, 9–13 September 2012, 13 p., Book of Abstracts, p. 176.
  16. *Use of Art Media in Scientific and Engineering Education*, XIV Generative Art International Conference GA2011, Edited by Celestino Soddu, December 5-7, 2011, pp. 32-46, Rome, Italy.
  17. *Corrosion of Aboveground Storage Tanks Containing Fuels*, The European Corrosion Congress, In: Proceedings EUROCORR 2011, Stockholm, Sweden, 4–8 September, 2011, 12 p.
  18. *How to Teach and Learn Corrosion?* The European Corrosion Congress, In: Proceedings EUROCORR 2011, Stockholm, Sweden, 4–8 September 2011, 12 p.
  19. *Interdisciplinary Relationships in Corrosion Teaching and Education at School, College and University*, The European Corrosion Congress, In: Proceedings EUROCORR 2010, Moscow, Russia, 13–17 September, 2010, 23 p.
  20. *Hydrogen Damage, Monitoring, and Prevention in the Oil Refinery*, The European Corrosion Congress, In: Proceedings EUROCORR 2010, Moscow, Russia, 13–17 September, 2010, 30 p.
  21. *Corrosion and Music*, In: Proceedings International Festival-Congress *Symmetry Art & Science*, Gmund, Austria, 23-38 August 2010, pp. 68-71.
  22. *Corrosion Monitoring in the Oil Refining Industry: Review*. Proceedings of the International Conference on Corrosion CORCON2009, 28<sup>th</sup> September - 1<sup>st</sup> October 2009, Mumbai, India, 85 p.
  23. *Corrosion Monitoring in the Oil Refining Industry*, The European Corrosion Congress, Proceedings EUROCORR 2009, Nice, France, 6–10 September, 2009, 75 p.
  24. *Naphthenic Acids Combat Naphthenic Acid Corrosion*, Paper No. 2257, In: Proceedings 17<sup>th</sup> International Corrosion Congress, October 6-10, 2008, Las-Vegas, USA, 2008, 16 p. (Co-authors: J. Penner, N. Brodsky, S. Skorodinsky).
  25. *Corrosion and Music*, Paper No. 2541, In: Proceedings 17<sup>th</sup> International Corrosion Congress, October 6-10, 2008, Las-Vegas, USA, 2008, 6 p. (Co-authors: O. Groysman).
  26. *Corrosion and Music*, The European Corrosion Congress, Proceedings EUROCORR 2008, Edinburgh, Scotland, 7 – 11 September 2008, 7 p.
  27. *New Inhibitors for Preventing Naphthenic Acid Corrosion*, The European Corrosion Congress, Proceedings EUROCORR 2008, Edinburgh, Scotland, 7 – 11 September, 2008, 17 p.

28. *Naphthenic Acid Corrosion Study*, Paper 1081, The European Corrosion Congress, Proceedings EUROCORR 2007, Freiburg im Breisgau, Germany, 9 – 13 September 2007, 23 p. (Co-authors: N. Brodsky, J. Penner).
29. *Corrosion and quality in the oil refining industry*, The European Corrosion Congress, Proceedings EUROCORR 2006, Maastricht, The Netherlands, 25 – 28 September, 2006, 10 p. (Co-author: N. Brodsky).
30. *Corrosion is everywhere*, The European Corrosion Congress, Proceedings EUROCORR 2006, Maastricht, The Netherlands, 25 – 28 September, 2006, 12 p. (Co-author: O. Groysman).
31. *Anti-Corrosion Management and Environment at the Oil Refining Industry*, Proceedings of the International Conference on Corrosion CORCON2005, 28<sup>th</sup>-30<sup>th</sup> November 2005, Chennai, India, 2005, 18 p.
32. *Corrosion for Everybody*, The European Corrosion Congress, Proceedings EUROCORR 2005, Lisbon - Portugal, 4 – 8 September, 2005, 8 p., (Co-author: O. Groysman).
33. *Corrosiveness of Acidic Crude Oil and Its Fractions*, The European Corrosion Congress, Proceedings EUROCORR 2005, Lisbon - Portugal, 4 – 8 September, 2005, 12 p. (Co-authors: N. Brodsky, J. Penner, A. Goldis,| N. Savchenko).
34. *Corrosion and Quality*, Proceedings of the 15<sup>th</sup> International Conference of the Israel Society for Quality, November 16-18, 2004, Jerusalem, Israel, pp. 223-230.
35. *Corrosion Problems and their Solutions in the Refining Industry*, The European Corrosion Congress, Proceedings EUROCORR 2004, Nice, 12 – 16 September, 2004, 9 p.
36. *Corrosion: Love and Struggle*, European Corrosion Congress, Proceedings EUROCORR 2004, Nice, 12 – 16 September 2004, 9 p.
37. *Humanistic aspects in corrosion education*, EUROCORR 2003 – The European Corrosion Congress, September 28 – October 2, 2003, Budapest, Hungary, Paper No. 028, 11 p.
38. *Corrosion and Philosophy*, 15<sup>th</sup> International Corrosion Congress “Frontiers in Corrosion Science and Technology”, Granada (Spain). September 22 to 27, 2002, Paper No. 482. 9 p.
39. *History of the evolution of knowledge about corrosion*. In: Proceedings EUROCORR 2001, Riva del Garda, Italy, September 30 – October 4, 2001, 11 p.
40. *MIC of aluminum alloy floating roofs for storage tanks during hydro-test*. In: Proceedings EUROCORR 2001, Riva del Garda, Italy, September 30 – October 4, 2001, 7 p.
41. *The Philosophy of Relationship between CORROSION and ART*, In: Proceedings EUROCORR 2000, Past Successes – Future Challenges, 10-14<sup>th</sup> September 2000, London, United Kingdom, IoM Communications Ltd., 11 p.
42. *Corrosion of aboveground storage tanks for petroleum products and choice of coating systems for their protection from corrosion*, EUROCORR` 98, The European Corrosion Congress “Solutions of Corrosion Problems”, Event No. 221, 28<sup>th</sup> September – 1<sup>st</sup> October 1998, Utrecht, The Netherlands.
43. *Corrosion Monitoring in the Oil Refinery*, Proceedings of the 13<sup>th</sup> International Corrosion Congress, 25-29 November 1996, Melbourne, Australia.

44. *Corrosion Monitoring in the Oil Refinery*, International Conference “Corrosion in natural and industrial environments: problems and solutions” (Italy), Paper No. 07, 23-25 May 1995.
45. *Corrosion Monitoring at the Oil Refinery*, Proceedings from Corrosion Asia 1994, The Second NACE Asian Conference, September 26 - 30, 1994, Singapore, pp. 1005-1 to 1005-13.
46. *Study of Anticorrosion Properties of Metal Arc - Sprayed Coatings on Carbon Steel for Use in Petroleum Products*. 12<sup>th</sup> International Corrosion Congress, Vol. 1, 19-24 September 1993, NACE International, Houston, Texas, USA, pp. 63-76.

#### **Papers (non-referred):**

1. *Corrosion: monitoring and control*, Journal Flowing Energy, No. 373, May 2022, pp. 30-31. (In Hebrew).
2. *Pitting corrosion: from myths to reality*. Chemical Engineering Journal, July 2021, Saint Petersburg, Russia. (In Russian).
3. *Terminology Confusion in Corrosion Science and Engineering*, The Israel Chemist and Engineer, Issue 6, July 2020, pp. 18-30. <https://www.digipage.co.il/projects/2020/ICE/6/toc/>
4. *150 years since Mendeleev's discovery of the Periodic Law*, The Israel Chemist and Engineer, Issue 5, November 2019, pp. 16-27. <https://ice.digitaler.co.il/ice2019/>
5. *Corrosion Problems and Solutions in Antifreeze Cooling Systems*, The Israel Chemist and Engineer, Issue 4, August 2018, pp. 14-23. Co-authors: K. Tartakovsky, M. Rabaev.
6. *Corrosion Problems and Solutions in Oil, Gas, Refining, and Petroleum Industry*, Koroze a ochrana materiálu, 2017, Vol. 63, Issue 3 (July), pp. 100-117. <https://www.degruyter.com/view/j/kom.2017.61.issue-3/issue-files/kom.2017.61.issue-3.xml>
7. *Water Chemistry for Copper and Stainless Steel Cooling Water Systems: Corrosion and Scaling Prevention*, The Israel Chemist and Engineer, Issue 3, June 2016, pp. 12-20. Co-author: Gilad Kol. <http://ice.digitaler.co.il/ice3/>
8. *Use of Titanium in the Oil Refining and Petrochemical Industry*, The Israel Chemist and Engineer, Issue 2, May 2016, pp. 29-37.
9. *Education in Chemical Engineering*, The Israel Chemist and Engineer, Issue 1, September 2015, pp. 32-41.
10. Ehud Keinan and Alec Groysman, *Framework Agreement for Collaboration between the Chemical Societies of the Czech Republic and Israel, November 25, 2014, Jerusalem*, The Israel Chemist and Engineer, Issue 1, September 2015, pp. 82-86.
11. *Memories and Thoughts for the Future*, Historical Journal of RChTU (Russian Chemico-Technological University) named after D.I. Mendeleev, №43(1), 2014, pp. 33-38. Moscow, 2014 (In Russian).
12. *The Beauty Will Save the World*, Globus for Industry, December 2013, p. 26 (In Hebrew).

#### **PATENTS:**

1. PROCESS FOR INHIBITING NAPHTHENIC ACID CORROSION, WO/2009/053971, 22.10.2007, USA.
2. The separation of lithium and calcium isotopes by means of amalgamo - chromatographic method. A.S., 1975, SU.
3. Corrosion inhibitor of steel in neutral aqueous solutions. A.S. 1025182, 1981, SU.

4. The solution for the accelerated corrosive test of polymer coatings` resistance in the petroleum products. A.S. 1221554, 1984, SU.
5. The solution for the accelerated corrosive test of arc spray aluminum coatings. A.S. 1392461, 1988, SU.