

Professor Noam Eliaz – Curriculum Vitae

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Education

- 1995-1999 Ph.D. in Materials Engineering (direct-track program), Ben-Gurion University of the Negev (BGU, *summa cum laude*).
 Doctoral dissertation: Hydrogen interaction with amorphous and quasicrystalline alloys.
 Honors: Eshkol Scholarship for Scientific Infrastructures (The Israel Ministry of Science) & BGU's Provost Prize (given once a year to one outstanding Ph.D. student in the whole University).
- 1996-1998 M.B.A., BGU (*magna cum laude*).
- 1988-1991 B.Sc. in Materials Engineering (Academic Reserve), BGU (*magna cum laude*).
 Engineering project: Modeling hydrogen diffusion and trapping around helium bubbles in First-Wall materials in nuclear reactors.
 Honors: Best departmental engineering project.

Academic and Professional Experience

- 2001– **Tel-Aviv University**.
 School of Mechanical Engineering (formerly: Department of Solid Mechanics, Materials and Systems): Senior Lecturer 1/10/2001-30/6/2008 (tenure awarded 1/4/2006); Associate Professor 1/7/2008-30/4/2012; (Full) Professor 1/5/2012-31/7/2013.
 Department of Materials Science and Engineering: Founding Chair & Full Professor since 1/8/2013.
- 8/2012-7/2013 **Northwestern University** (IL, USA).
 Eshbach Visiting Professor (on sabbatical leave), Department of Materials Science and Engineering. Hosts: Professors David N. Seidman and David C. Dunand.
- Autumn 2005 **Tokyo Medical and Dental University** (Tokyo, Japan).
 JSPS Visiting Professor, Institute of Biomaterials and Bioengineering.
- Summer 2002 **MIT** (MA, USA).
 Visiting Scientist, H.H. Uhlig Corrosion Lab, Department of Materials Science and Engineering.
- 1999-2001 **MIT** (MA, USA).
 Postdoctoral Fulbright and Rothschild Fellow, H.H. Uhlig Corrosion Lab, Department of Materials Science and Engineering. Advisor: Prof. Ronald M. Latanision.
- 1992-1995 **Israel Air Force** (IAF).
 Metallurgical Laboratory officer (currently holds the rank Major in reserve).

Responsibilities

- January 2017 Appointed by Israel's Minister of Science, Technology, and Space as a member of the [Governing Board of The German-Israeli Foundation for Scientific Research and Development \(GIF\)](#).
- March 2017 Appointed by the President of The Israel Academy of Sciences and Humanities

- as a member of the followup committee of the “State of Science in Israel” (following the [2nd report](#) of the Academy from 2016)
- August 2017-present A member of the Nominations Committee of the Faculty of Engineering, TAU.
- October 2017-present A member of the [Steering Committee](#) of TAU (elected by the Senate).
- 2013-2017 Founding Chair, [Department of Materials Science and Engineering](#), TAU.
- 2009-2011 Founding Head, Materials and Nanotechnologies Program (for MSc and PhD studies), TAU.
- 2006-2009 Coordinator in the Faculty of Engineering, Materials Science and Engineering Program (MSc studies), TAU.
- 2005-2017 Editor-in-Chief of *Corrosion Reviews*.
- 2017- Editorial Board, *Corrosion Reviews*.
- 2017- Editorial Board, *Bioceramics Development and Applications*.
- 2017- Editorial Board, *Corrosion and Materials Degradation*.
- 2017- Editorial Board, *Current Topics in Electrochemistry*.
- 2010-2017 A member of the Academic Council of the [Azrieli College of Engineering Jerusalem](#).
- 2015-2017 Member of the review committee for Israeli postdoctoral scholars in sciences and engineering, [Fulbright Post-Doctoral Fellowships program](#).
- 2014-2016 Israel Regional Representative (elected), International Society of Electrochemistry (ISE).
- 2012-2014 Chairman – TEG 186X committee on Environmentally Assisted Cracking, NACE International.
- 2008-2011 Chairman – Central Committee 300 for Chemistry Standards, The Standards Institution of Israel.
- 2003-2005 Chairman, The Israel Section of NACE International.

Honors

- 2015 Elected Member, [The Israel Young Academy](#) (IYA).
- 2014 [Technical Achievement Award](#), NACE International.
Citation: “For outstanding achievements in corrosion research, engineering and education, with key contributions in electrodeposition of special materials, biomaterials corrosion, and failure analysis in the aircraft, space, medical device, nuclear power generation, and naval industries” (the only Israeli recipient of this honor so far).
- 2013 Eshbach Visiting Scholar, McCormick School of Engineering and Applied Science, NU.
This program supports “short visits of distinguished visitors from industry or academia to the McCormick School (1-2 scholars are appointed each year).”
- 2012 [NACE Fellow](#), NACE International (the only Israeli Fellow so far).
- 2010 Two projects to which Eliaz contributed were selected as having the 2nd and 3rd highest impact on the Israel Air Force among all engineering projects carried out in the materials area during 60 years. These projects were the use of ferrography in condition monitoring and failure analysis of F-16 engines, respectively.
- 2010 [Herbert H. Uhlig Award](#), NACE International (the first Israeli to receive this or any other NACE International award).
- 2005-2007 Fellow, The Japanese Society for the Promotion of Science (JSPS).

- 2003 T.P. Hoar Award for the best paper published in the journal *Corrosion Science* during 2001. The Institute of Corrosion and Pergamon.
- 2002 [Dan David scholarship](#) for young researchers (TAU).
- 1999 Fulbright and Rothschild postdoctoral fellowships (the only materials engineer to receive both).

Research Interests

Prof. Eliaz's research is interdisciplinary and combines basic scientific research with applied research and development. Examples include: (1) Additive manufacturing (AM), either from powders or from electrolyte solutions; (2) Development of novel electrochemically-deposited hydroxyapatite coatings for orthopedic and dental implants; (3) The use of Bio-Ferrography for diagnosing osteoarthritis or cancer, determining the efficacy of drug treatments, and monitoring the wear of artificial joints; (4) Study of corrosion in different environments (from aircraft, space and nuclear reactors to the human body); (5) Development of functional electrochemical coatings (e.g. rhenium coatings that are resistant at high temperatures and in aggressive environments for aircraft, aerospace and catalysis applications); and (6) Failure analysis. The products of his research are being used in defense organizations and implant companies. Being the Chief Scientist of [SGS Dental Implant](#), he is currently leading a process of scaling-up a hydroxyapatite coating that he developed at TAU.