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EDUCATION

- PhD** **2010 – 2015**
Technion – Israel Institute of Technology, Grand Technion Energy Program **Haifa, Israel**
Mentored by Prof. Gideon S. Grader and Dr. Gennady E. Shter
Dissertation title: "[Reactions of a nitrogen-based alternative fuel](#)"
- BSc (Honors) in Biochemical Engineering** **2006 – 2010**
Technion – Israel Institute of Technology, Wolfson Department of Chemical Engineering **Haifa, Israel**

ACADEMIC APPOINTMENTS

- Assistant Professor** **2020 – Present**
Technion – Israel Institute of Technology, Wolfson Department of Chemical Engineering **Haifa, Israel**
- Senior Postdoctoral Researcher** **2018 – 2020**
Massachusetts Institute of Technology (MIT), Department of Chemical Engineering **Cambridge,**
At Prof. William H. Green's research group **MA, USA**
- Leading collaborations on various projects both with academia and industry
 - Author and developer of [ARC](#), a software for automation of quantum chemical calculations
 - Author and developer of [T3](#), a software for automatically refining chemical kinetic models
 - Author and developer of [TCKDB](#), a database project and a community standard for storing and sharing kinetics relevant quantum calculations
- Postdoctoral Researcher** **2015 – 2018**
Massachusetts Institute of Technology (MIT), Department of Chemical Engineering **Cambridge,**
At Prof. William H. Green's research group. **MA, USA**
- Lead developer of [Arkane](#), an automated software for potential energy surface exploration of pressure-dependent reaction networks
 - Enhancing the automated rate-based Reaction Mechanism Generator ([RMG](#)) software developed by the group with heteroatom chemistry

AWARDS AND HONORS

- The MolSSI Software Fellowship Program, [The Molecular Sciences Software Institute](#) (MolSSI), 2020**
- The Dr. George J. Elbaum Scholarship in Engineering, Technion, 2019**
- The Mortimer B. Zuckerman Scholarship Program in STEM Leadership, zuckerman-scholars.org, 2017 and 2018**

The Ed Satell Foundation Postdoctoral Scholarship, Technion–MIT, 2016

Muriel and David Jacknow Award for Excellence in Teaching, Technion – Israel Institute of Technology, spring and winter 2012

Sandor Szego Award for Excellence in Teaching, Technion – Israel Institute of Technology, spring 2011, spring 2012, spring 2013

Vivian Konigsberg Award for Excellence in Teaching, Technion – Israel Institute of Technology, winter 2010, winter 2011, winter 2012, winter 2013

Dr. Simcha Avrahami Award, The Wolfson Department of Chemical Engineering, Technion – Israel Institute of Technology, 2010

PROFESSIONAL ACTIVITIES

Editorial Board Member, [Fuel Communications](#) (ISSN: 2666-0520), 2020 – Present

Guest Editor for [Fuel Communications](#) (ISSN: 2666-0520) and [MDPI Energies](#) (ISSN: 1996-1073)

Thesis Committee Advisor:

- Kian Mehrabani, MSc, Department of Chemical Engineering, Northeastern University
- Alon Naor, MSc, Department of Aerospace Engineering, Technion
- Kevin A. Spiekermann, PhD, Department of Chemical Engineering, MIT
Thesis title: "Enabling Automated Generation and Refinement of Kinetic Models for Turbulent Simulations"

Reviewer: Analyst; *Angewandte Chemie International Edition*; *ChemCatChem*; *Chemical Education*; *Chemical Engineering Journal*; *Combustion and Flame*; *Industrial & Engineering Chemistry Research*; *International Conference on Chemical Reaction Engineering*; *International Journal of Chemical Kinetics*; *Proceedings of The Combustion Institute Journal*; *Reaction Chemistry & Engineering*; *Review of Scientific Instruments*; *The Journal of Physical Chemistry*;

Research proposal reviewer: The Israeli Smart Transportation Research Center (ISTRC)

Session co-chair, Physical Organic Chemistry: Calculations, Mechanisms, Photochemistry & High-Energy Species, 256th American Chemical Society (ACS) National Meeting & Exposition, Boston, MA; August 19-23, 2018.

Conference organizer, The 38th Northeast Regional Meeting on Kinetics and Dynamics, Cambridge, MA; January 25, 2020.

Open-source software contributions:

- *Reaction Mechanism Generator (RMG)*, Developer, 2015–present, [website](#), [source code on GitHub](#)
- *Automated Reaction Kinetics and Network Exploration (Arkane)*, Leading Developer, 2017–2020, [website](#), [source code on GitHub](#)
- *Automated Rate Calculator (ARC)*, Author and Leading Developer, 2018–Present, [documentation](#), [source code on GitHub](#)
- The RMG-ARC Tandem Tool (T3) for automated mechanism generation and refinement, Author and Leading Developer, 2020–Present, [documentation](#), [source code on GitHub](#)
- Theoretical Chemical Kinetics Database (TCKDB), Author and International Consortium leader, 2019–Present, [documentation](#), [source code on GitHub](#)