

EDUCATION

- 2016- today** Ph.D. Student in the Solar Energy and the Environmental Physics Department at the Jacob Blaustein Institutes for Desert Research, Albert Katz International School for Desert Studies, Ben-Gurion University of the Negev.
Thesis: "Surface and Interface Passivation of Perovskite PV materials"
- 2014-2016** M.Sc. studies in Solar Energy and the Environmental Physics at the Jacob Blaustein Institutes for Desert Research, Albert Katz International School for Desert Studies, Ben-Gurion University of the Negev.
Thesis: "Light controlled charge transport in molecular junctions on ITO"
- 2009-2013** Ben-Gurion University, B.Sc. in Chemistry - Physical Chemistry Program.
- 2004-2006** Ben-Gurion High School, Bagrut- extended topics: Mathematics, Chemistry, Biology and English.
- 2003-2004** Israeli Arts and Science Academy (IASA) in Jerusalem, of the Israel Center for Excellence through Education.

PUBLICATIONS

- J. Harrell, M. Acikgoz, **H. Lieber Sasson**, I. Visoly-Fisher, A. Genova, and A. Pavanello *Models of Surface Morphology and Electronic Structure of Indium Oxide and Indium Tin Oxide for Several Surface Hydroxylation Levels*, **J. Phys. Chem. C**, 2018, 122 (1), pp 584–595
- Y. Furmansky, **H. Sasson**, P. Liddell, D. Gust, N. Ashkenasy and I. Visoly-Fisher, *Porphyrins as ITO photosensitizers: substituents control photo-induced electron transfer direction*, **J. Mater. Chem.**, 2012, 22, 20334-20341

LECTURES AT SCIENTIFIC CONFERENCES

- H. Sasson**, F. Dvinyatin, Y. Furmansky, P. Troshin, N. Ashkenasy, I. Visoly-Fisher "Modulating an electron barrier at ITO/organic semiconductor junctions via molecular adsorption and its effect on organic solar cells performance"
 - The 14th International Conference on Nanosciences & Nanotechnologies, July 2017, **Thessaloniki, Greece**.
 - The 10th International Symposium on Flexible Organic Electronics, July 2017, **Thessaloniki, Greece**.
 - IVS-MRS Student Conference, July 2017, Weizmann Institute of Science, **Rehovot, Israel**.

POSTER PRESENTATIONS AT SCIENTIFIC CONFERENCE

- H. Liber Sasson** and I. Visoly-Fisher "Surface and Interface Passivation of Perovskite PV Materials" The 2019 MRS Fall Meeting, December 2019, **Boston, MA**.
- H. Liber Sasson**, Y. Furmansky, J. M. Alonso, H. Zuilhof, I. Visoly-Fisher "Novel ITO surface passivation by molecular adsorption" iPen 2nd Intensive Course in Laser Spectroscopy and Safety, Physics Department of Politecnico Di Milano, May 2019, **Milano, Italy**.
- H. Sasson**, Y. Furmansky, J. M. Alonso, H. Zuilhof, I. Visoly-Fisher "ITO surface passivation by molecular adsorption" The 5th International Nanotechnology Conference and Exhibition NanoIsrael February 2016, Tel Aviv University, **Tel Aviv, Israel**.
- H. Sasson**, Y. Furmansky, J. M. Alonso, H. Zuilhof, I. Visoly-Fisher "ITO surface passivation by thermal grafting" The Israel Vacuum Society 33rd Conference, September 2015, Weizmann Institute of Science, **Rehovot, Israel**.
- H. Sasson**, Y. Furmansky, J. M. Alonso, H. Zuilhof, I. Visoly-Fisher "1-alkene molecules – an efficient passivator of ITO surface states?" The Batsheva de Rothschild Seminar on Molecular Electronics 2015 40 Years Later, June 2015, **Jerusalem, Israel**.

PROFESSIONAL AND RESEARCH EXPERIENCE

- 2017** Teaching exercise classes at Achva Academic College: Physical chemistry and Analytical and General chemistry.
- 2017** Guiding at the summer internship program at the Albert Katz International School for Desert Studies. "Characterization of brominated polyaniline molecular orbitals"
- 2014-2020** Guiding a research project of undergraduate students from the chemistry, chemical engineering and materials engineering departments;

“Perovskite surface modification via muconic acid”

“Adsorption of phosphonic acids on ITO”

“Novel ITO passivation for improved ITO photostability in OPV devices”

2015-2016 Teaching tutorial laboratories at SCE Shamoon collage of engineering: Physical chemistry and Analytical chemistry.

2012-2013 Research assistant at the Chemistry department at Ben-Gurion University.

MILITARY SERVICE

2007-2009 Visual Intelligence Researcher, in the Air Force Corps of the Israel Defense Forces.

- Providing intelligence to the Air Force.
- Coping under pressure and making decisions immediately and directly.
- Use of advanced computer systems, developed visual vision, spatial understanding, analytical ability, responsibility and diligence.
- Ability to work independently and high self-discipline, alongside work in teams and in parallel with external bodies.

GRANTS AND FELLOWSHIPS

2016 – 2020 High-tech Bio-tech and Chemo-tech Scholarship for outstanding doctoral candidates, Ben-Gurion University of the Negev, Kreitman School of Advanced Graduate Studies.

2019 Grant for the 2nd Intensive Course in Laser Technology, Laser Spectroscopy and Laser Safety on the frame of the iPEN project at the Physics Department of Politecnico Di Milano, Milano Italy, funded by Erasmus+ program of the European union.

2014-2016 Graduate student fellowship of the Albert Katz International School for Desert Studies.

2015 COST- StableNextSol - European cooperation in science and technologies, short term scientific mission grant for a joint project with Prof. Pavel Troshin IPCP RAS university at his laboratory at Chernogolovka, Russia;

“Stable next-generation of photovoltaics-unraveling degradation mechanism of organic solar cells by complementary characterization technique, Novel ITO passivation for improved ITO photostability” (COST-STSM MP1307).

COMPUTER AND LAB SKILLS

- SEM microscopy, AFM-STM microscopy, UV-VIS spectroscopy, Photoluminescence spectroscopy, Kelvin probe, Cyclic voltammetry and Contact angle.
- Chemical adsorption synthesis, SAM, Sol-gel, Spin coating, Thermal Vapor Deposition and Photolithography.
- Fabrication, Characterization and Photodegradation of photovoltaic cells.
- Microsoft Office, Adobe Photoshop, Adobe Illustrator Artwork and OriginPro.

VOLUNTEER WORK

2011-2012 Guiding and supporting the golden age community at safe housing.

2010-2011 Teaching an elementary school student via Perach national program.

2008-2009 Volunteering at Schneider Children's Medical Center of Israel.

2001-2006 A verity of volunteer work as a member of the youth city council.

LANGUAGES

Hebrew- native, English- fluent.

References list will be given on request