Dr. Shmuel Samuha

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Education

2012-2016	**Ph.D.** (Incorporated M.Sc.-Ph.D. Track), Department of Materials Engineering, Ben-Gurion University of the Negev (ME-BGU), Beer-Sheva, Israel. Research supervisor: Prof. L. Meshi. Thesis subject: " Structural investigations of complex aluminides using novel electron crystallography methods "
2010-2012	**M.Sc., with excellence** ***(Summa cum laude)***, ME-BGU, Beer-Sheva, Israel. Research supervisor: Prof. L. Meshi. Thesis subject: " Crystal structure determination of aluminides by precession electron diffraction "
2005-2010	**B.Sc.**, (Electronic & Structural Materials), ME-BGU, Beer-Sheva, Israel. Research supervisor: Prof. L. Meshi. Project subject: "Dislocation structure under friction of copper in different lubricant conditions"
1999-2001	**Technical engineer in electronics (with excellence)**, Ort Hermalin, Natanya, Israel

Employment

2019-2021	Lecturer, Department of Materials Engineering, BGU, Beer-Sheva, Israel. Teaching "Crystallography of polycrystalline materials", the course is given to graduate students.
2015	Lecturer, Department of Materials Engineering, ME-BGU, Beer-Sheva, Israel. Teaching "X-Ray Diffraction", the course is given to undergraduate students.
2015-present	NRCN (Nuclear Research Center Negev), Israel.
2010-2014	Academic Assistant, ME-BGU, Beer-Sheva, Israel.
2008-2010	Research Assistant, ME-BGU, Beer-Sheva, Israel.

Professional and Administrative Activities

2019	**Head of Forensics Group,** NRCN
2017-present	**Head of Physical Metallurgy Group**, Materials department, NRCN
2015- present	**Researcher**, Physical-metallurgy group, Materials department, NRCN.

Awards and Honors

2015	**The Katzir scholarship** to promising Israeli scientists specializing in the fields of engineering, electronics and core sciences
2015	**The SIG-4 award** - Special Group of Interest on Electron Crystallography of the European Crystallography Association, for excellent research in the field of electron crystallography
2014	**The Micron Semiconductor award,** for excellence in doctoral research
2013	**Dean award,** for academic excellence
2013	**The Negev-Zin Scholarship**, for outstanding doctoral students
2012	**B.Sc. with excellence**, Department of Materials Engineering (Electronic & Structural Materials), Ben-Gurion University of the Negev, Beer-Sheva, Israel.
2011	**Ludo-Frevel award** in crystallography, by the International Center for Diffraction Data, USA, for excellent research in the field of crystallography

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Academic Activities

Review of scientific publications (peer reviewed journals): more than 40 papers, starting 2018, for:

- *International Journal of Molecular Science* (ISSN: 1422-0067)
- *Metals* (ISSN: 2075-4701)
- *Materials* (ISSN: 1996-1944)

Membership in scientific societies –

- Israel Society for Microscopy (ISM)
- Israel Crystallographic Association (ICA)
- European Microscopy Society (EMS)
- Israel Materials Society (IMES)

Professional training in international schools –

- Residual Stress analysis, Bruker Karlsruhe, Germany, (2019)
- Texture analysis, Bruker, Karlsruhe, Germany, (2019)
- Gatan school EELS, Ben Gurion University of thte Negev, Israel, (2015)
- International school on fundamental crystallography, Guletchitza, Bulgaria, (2013)
- International electron crystallography school – New methods to explore structure and properties of the nano world", Erice, Italy, (2011)
- Facts on Electron crystallography, the joint laboratory for electron microscopy, Adlershof of the Humboldt university, Berlin, Germany, (2010)

Educational Activities

Courses taught

1. Since 2019 to 2021 teaching the course "Crystallography of polycrystalline materials", given to graduate students at the BGU, Beer-Sheva, Israel.
2. In 2015, teaching the course "X-Ray Diffraction", the course is given to undergraduate students at the ME-BGU, Beer-Sheva, Israel.

Research students

1. Ph.D. thesis

2019-current	Ben Amir, "Structure and properties of the selective laser melted AlSi10Mg alloy", (as official supervisor together with Prof. Oren Sadot)

2. M.Sc. thesis

2019-current	Dvir Fadel, "Effects of Heat-Treatment on Mechanical Properties and Microstructure of a New Low Carbon Ferrium C64 alloy", (as official supervisor together with Prof. Roni Shneck)
2019	Ben Amir, "The Effect of Manufacturing Technique of 3D Printed AlSi10Mg Alloy on the Dynamic Stress-Strain Behavior", (as official supervisor together with Prof. Oren Sadot)

3. B.Sc. project

2019	Lior Snarsky and Shachf Baron, "On the Tension-Compression Yield Asymmetry in Hot Extruded Mg-ZM21 Alloy", ME-BGU, Beer-Sheva, Israel. (together with Adi Ben-Artzy and Arie Bussiba)
2018	Guy Barak, "Formability of AZ80 by Electro-Magnetic Pulses", ME-BGU, Beer-Sheva, Israel. (together with Eyal Kahana)