

Publications List – Shmuel Samuha

Since the last promotion

Peer reviewed journals

1	B. Amir, E. Kochavi, S. Gruntman, S. Samuha, O. Sadot, "Experimental investigation on the shear strength of SLM AlSi10Mg under quasi-static and dynamic loads", (accepted to Additive Manufacturing)
2	B. Amir, E. Grinberg, Y. Gale, O. Sadot, and S. Samuha, "Influence of platform heating and post-processing stress relief treatment on the mechanical properties and microstructure of selective laser melted AlSi10Mg alloys", <i>Materials Science & Engineering A</i> 822 (2021), 141612.
3	Y. I. Ganor, E. Tiferet, S. C. Vogel, D. W. Brown, M. Chonin, A. Pesach, A. Hajaj, A. Garkun, S. Samuha, R. Z. Shenck, O. Yeheskel, "Tailoring Microstructure and Mechanical Properties of Additively-Manufactured Ti6Al4V Using Post Processing", <i>Materials</i> (2021), 14, 658.
4	B. Ratzker, A. Wagner, S. Kalabukhov, S. Samuha, N. Frage, "Non-uniform microstructure evolution in transparent alumina during dwell stage of high-pressure spark plasma sintering", <i>Acta Materialia</i> 199 (2020) p. 469-479.
5	R. Ben David, Y. Finkelstein, E. Grinberg, S. Samuha, E. Rabkin, D. Cohen, "Oxidation induced cubic-tetragonal phase transformation in titanium hydride powders", <i>International Journal of Hydrogen Energy</i> , 45 (2020), p.25043-25053.
6	Y. Snir, D. Moreno, I. Silverman, S. Samuha, Y. Eisen, D. Eliezer, Y. Gelbstein, S. Haroush, "Mechanical properties of proton bombarded SS316L thin foils using the small punch technique", <i>Journal of Nuclear Materials</i> , 540 (2020), 152340
7	B. Amir, S. Samuha, O. Sadot, "Influence of Selective laser Melting Machine Source on the Dynamic Properties of AlSi10Mg alloy", <i>Materials</i> , (2019), Special Issue, Additive Manufacturing: Alloy Design and process Innovations, Vol. 12, Issue 7.
8	S. Samuha, E. Kahana, O. Sadot, R. Shneck, "Improved Formability of Mg-AZ80 alloy under a high strain rate in Expanding-Ring Experiments", <i>Materials</i> (2018), 11(2), 329
9	L. Meshi, S. Samuha, "Characterization of atomic structures of nanosized intermetallic compounds using electron diffraction methods", <i>Advanced Materials</i> , (2018), special issue: Materials Research in Israel, Vol. 30, Issue 41
10	G. Guttman, R. Gertner, S. Samuha, D. Ben-Ayoun, S. Haroush, Y. Gelbstein, "Thermoelectric and mechanical properties of Ag and Cu doped (GeTe) _{0.96} (Bi ₂ Ti ₃) _{0.04} ", <i>MRS Communications</i> , (2018), 8, 1292-1299

Oral presentations

1	Euromat 2019, Sweden, Stockholm, Topic: "The influence of the Processing Strategy on the Dynamic Response of SLM-AlSi10Mg Alloy", 1-5 September,
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2	Euromat 2019, Sweden, Stockholm, Topic: "Effects of heat treatment on mechanical properties and microstructure of "Ferrium C64 Steel", 1-5 September, 2019
3	The 35th Israeli Conference on Mechanical Engineering - ICME 2018, Beer-Sheva, Topic: "Investigating the effect of manufacturing technique of 3D printed AlSi10Mg alloy on the dynamic stress-strain behavior", 9-10 October, 2018

Posters

1	Euromat 2019, Sweden, Stockholm, Topic: Dynamic response of the additively manufactured Ti-6Al4V at high strain rate", 1-5 September, 2019
2	Euromat 2019, Sweden, Stockholm, Topic: The role of applied pressure on the susceptibility of the AISI 1020 pipeline steel to stress corrosion cracking", 1-5 September, 2019
3	The 53th annual meeting of the Israel Society for Microscopy, Dan Panorama, Tel-Aviv, Israel, Topic: "The influence of the processing strategy on the dynamic response of SLM-AlSi10Mg alloy", 29 May, 2019
4	The 53th annual meeting of the Israel Society for Microscopy, Dan Panorama, Tel-Aviv, Israel, Topic: "Effects of heat treatment on mechanical properties and microstructure of a new low carbon steel 'Ferrium C64'", 29 May, 2019
5	The 18th Israel Materials Engineering Conference, Dead Sea, Israel, Topic: A kinetic study of non-isothermal hydrogen desorption from uranium hydride", 6-8 February, 2018
6	The 18th Israel Materials Engineering Conference, Dead Sea, Israel, Topic: Evaluating the mechanical properties of oxide dispersion strengthened ferritic steel using small punch testing technique", 6-8 February, 2018
7	The 52th annual meeting of the Israel Society for Microscopy, Dan Panorama, Tel Aviv, Israel, Topic: On the tension-Compression Yield Asymmetry in Hot Extruded Mg-ZM21 alloy", 20 June, 2018

Others

Before the last promotion

Peer reviewed journals

1	R. E. Abutbul, E. Segev, S. Samuha, L. Zeiri, V. Ezersky, G. Makov, Y. Golan, "A new nanocrystalline binary phase: Synthesis and properties of cubic tin-monoselenide", <i>CrystEngComm</i> , 18, 11, (2016), pp. 1918-1923
2	D. Kapush, S. Samuha, L. Meshi, T. Velikanova, B. Grushko, "Formation of Complex Intermetallics in the Al-Rich Part of Al-Pt-Ru", <i>J. of Phase Equilibria and Diffusion</i> , <i>J. of phase Equilibria and Diffusion</i> 36, (4), (2015), p.327-332
3	A. Rabkin, S. Samuha, R. E. Abutbul, V. Ezersky, L. Meshi, Y. Golan, "New Nanocrystalline Materials: A previously unknown simple cubic phase in the SnS binary system", <i>Nano Letters</i> , 15 (3), (2015) p. 2174-2179
4	B. Grushko, S. Samuha, L. Meshi, "A study of the Al-Pt-Ir phase diagram", <i>Journal of Alloys and Compounds</i> , 646 (2015), pp. 873-878
5	S Samuha, D. Pavlyuchkov, O. Zaikina, B. Grushko, L. Meshi, "Crystal structures of the Al-Ti-Pt τ_5 and τ_6 phases solved by zonal Precession Electron Diffraction", <i>Journal of Alloys and Compounds</i> , 621 (2015), pp. 47-52
6	B. Grushko, D. Kapush, S. Samuha, L. Meshi, "A study of the Al-Pd-Pt alloy system", <i>Journal of Alloys and Compounds</i> , 600 (2014), pp. 125-129
7	S. Samuha, E. Mugnaioli, B. Grushko, U. Kolb, L. Meshi, "Atomic structure solution of the complex quasicrystal approximant Al ₇₇ Rh ₁₅ Ru ₈ from electron diffraction data", <i>Acta Cryst.</i> , (2014), pp. 999-1005
8	S. Samuha, Y. Krimer, L. Meshi, "Strategies for full structure solution of intermetallic compounds using precession electron diffraction zonal data", <i>J. App. Cryst.</i> , (2014), pp. 1032-1041
9	S. Samuha, V. Uvarov, L. Meshi, "Study of ternary complex Al-Mg-Ag intermetallics using Precession Electron Diffraction", <i>Zeitschrift fur Kristallographie – Crystalline Materials</i> , (2013), Vol. 228, No. 1, pp. 59-62
10	L. Meshi, S. Samuha, "Structure determination of intermetallics using precession electron diffraction", <i>Acta Cryst. A</i> , A68 (2012), S99.
11	A. Moshkovich, V. Perfilyev, L. Meshi, S. Samuha, S. Cohen, H. Cohen, A. Laikhtman, L. Rapoport, "Friction, wear and structure of Cu samples in the lubricated steady friction state", <i>Tribology International</i> , 46, (2012), pp. 154-160
12	L. Meshi, S. Samuha, S. Cohen, A. Laikhtman, A. Moshkovich, V. Perfilyev, I. Lapsker, L. Rapoport, "Dislocation structure and hardness of surface layers under friction of Cu in different lubricant conditions", <i>Acta Materialia</i> , 59, (2011), pp. 342-348
13	L. Meshi, S. Samuha, D. Kapush, D. Pavlyuchkov, B. Grushko, "New complex intermetallic in the Al-Rh-Ru alloy system", <i>Journal of Alloys and Compounds</i> , 509, (2011), pp. 6551-6555
14	L. Meshi, Y. Krimer, S. Samuha, "Full structure solution of aluminides using precession electron diffraction data", <i>Acta Cryst.</i> , A – Foundations of Crystallography, 67, (2011), pp. 692
15	B. Grushko, D. Kapush, T. Ya. Velikanova, S. Samuha, L. Meshi, "An investigation of the Al-Rh-Ru phase diagram above 50 at% Al", <i>Journal of Alloys and Compounds</i> , 509, (2011), pp. 8018-8021

Oral presentations

1	WJAM Israeli Conference, Topic: "Selective Laser Melting of AlSi10Mg – the effect of build direction on adjacent powder particles", 21 February, 2017
2	49th annual scientific meeting of the ISM, Bar Ilan University, Ramat-Gan, Topic: "Structure solution of the Al ₆₅ Cu ₂₅ Re ₁₀ phase by 3D Electron Diffraction Tomography", 17-18 May, 2015
3	The 16th Israel Materials Engineering Conference (IMEC), Topic: "Full structure solution of intermetallic compounds using solely electron diffraction data", 23-25 February, 2014
4	The 16th Israel Materials Engineering Conference (IMEC), "Structure solution of Al-Rh-Ru approximant of decagonal quasicrystal from automated electron diffraction tomography data", 23-25 February, 2014
5	European Congress and Exhibition on Advanced Materials and Processes, Spain, Topic: "Structure characterization of complex intermetallic Al ₇₇ Rh ₁₅ Ru ₈ phase using novel automated diffraction tomography method", 8-13 September, 2013
6	47th annual scientific meeting of the ISM, Safed, Topic: "Full structure solution of PtAl _x Ti _{4-x} intermetallide from precession electron diffraction zonal data", 29-30 May, 2013
7	Intermetallics, Germany, HOT TOPIC: "Structure solution of aluminides from precession electron diffraction zonal data", 30 September-04 October, 2013
8	15th Nordic symposium on Tribology, Trondheim, Norway, Topic: "The effect of grain size on deformation, structural changes of Cu under friction in the transition from EHL to BL regime", 12-15 June, 2012

Posters

1	International school on fundamental crystallography, Guletschitza, Bulgaria, Topic: "Structure determination of new Mg ₄₈ Al ₃₆ Ag ₁₆ complex intermetallic by direct methods on zonal precession electron diffraction data", 30 September – 5 October, 2013
2	XII international conference on crystal chemistry of intermetallic compounds, Lviv, Ukraine, Topic: "A study of the Al-Pd-Pt alloy system", 22-26 September, 2013

3	The 46th ISM, Beer-Sheva, Topic: "Structure solution of new Mg ₄₈ Al ₃₆ Ag ₁₆ complex intermetallide from precession electron diffraction data". Best poster award, 22 May, 2012
4	Nano Israel, Tel Aviv, Israel, Topic: "Structure solution of nano-sized intermetallides found in Mg-Al-Ag system using Precession Electron diffraction method", 26-27 March, 2012
5	The 15th IMEC, Dead-Sea, Israel, Topic: "Full structure solution of aluminides using precession electron diffraction data", 28 February, 2012
6	The 15th European Microscopy Congress (EMC), Manchester, United Kingdom, Topic: Structure determination of alluminides using solely electron crystallography methods", 16-21 September, 2012
7	XXII congress and general Assembly of the International union of crystallography, Madrid, Spain, Topic: "Full structure solution of aluminides using precession electron diffraction data", 22-30 August, 2011
8	International school of electron crystallography, Erice, Italy, Topic: "Structure determination of a new Al ₇₇ Rh ₁₅ Ru ₈ phase", Best poster award, 2-12 June, 2011
9	45th ISM, Hagoshrim, Israel, Topic: "Characterization of the structure of a new ternary approximant phase in the Al-Rh-Ru system", 25-26 May, 2011
10	37th, Leeds-Lyon symposium on Tribology, UK, Topic: "Friction, wear and structure of Cu samples in the lubricated steady friction state", 7-10 September, 2010
11	44th ISM, Tel-Aviv university, Israel, Topic: "Microstructural evolution of Cu subjected to sliding", 31 May, 2010

Others

Thesis

1	S. Samuha, "Structural investigations of complex aluminides using novel electron crystallography methods", Ph.D. thesis, Ben-Gurion University, Israel, (2016)
2	S. Samuha, "Structural investigations of complex aluminides using novel electron crystallography methods", M.Sc. thesis, Ben-Gurion University, Israel, (2012)