

Publications List – Ofer Beeri

Since the last promotion

Peer reviewed journals

1. I. Halevy, O. Beeri, J. Hu, "Sc Strengthened Commercial Purity Aluminum Under High-Pressure", *Journal of Materials Science*, 45 (2010) 589-592.
2. O. Beeri, D. C. Dunand, D. N. Seidman, "Role of Impurities on Precipitation Kinetics of Dilute Al-Sc alloys", *Journal of Material Science and Engineering A*, 527 (2010) 3501-3509.
3. S. Ifergane, Z. Barkay, O. Beeri, N. Eliaz, "Study of fracture evolution in copper sheets by in situ tensile test and EBSD analysis", *Journal of materials science*, 45 (2010) 6345-6352.
4. S. Ifergane, E. Sabanati, B. Carmeli, Z. Barkay, V. Ezerski, O. Beeri, N. Eliaz, "Hydrogen diffusivity measurement and microstructural characterization of Custom 465 stainless steel", *Electrochemical Acta* 178 (2015) 494-503.
5. T. Shalev, O. Meroz, O. Beeri, Y. Gelbstein, "Investigation of the influence of MoSe₂ on the thermoelectric properties of n-type BiTe_{2.4}Se_{0.6}", *Journal of Electronic Materials*, 44(6) (2015) 1402-1407.
6. O. Beeri, O. Rotem, E. Hazan, E. Kats, A. Brown, Y. Gelbstein, "Hybrid photovoltaic-thermoelectric system for concentrated solar energy conversion: Experimental realization and modeling", *Journal of Applied Physics*, 118 (2015) 115104.
7. O. Appel, T. Zilber, S. Kalabukhov, O. Beeri, Y. Gelbstein, "Morphological effects on the thermoelectric properties of Ti_{0.3}Zr_{0.35}Hf_{0.35}Ni_{1+δ} alloys following phase separation" *J. Mater. Chem. C*, (2015) 3, 11653-11659.
8. O. Meroz, D. Ben-Ayoun, O. Beeri, Y. Gelbstein, "Development of Bi₂Te_{2.4}Se_{0.6} alloy for thermoelectric power generation applications", *Journal of Alloys and Compounds* 679 (2016) 196-201.
9. R. Vigel, T. Bargig, O. Beeri, Y. Gelbstein, "Bonding of Bi₂Te₃-Based Thermoelectric Legs to Metallic Contacts Using Bi_{0.82}Sb_{0.18} Alloy", *Journal of Electronic Materials*, 45(3) (2016) 1296-1300.
10. G. Roizin, O. Beeri, M. M. Peretz, Y. Gelbstein, "Vertical power MOS transistor as a thermoelectric quasi-nanowire device", *Journal of Applied Physics*, 120 (2016) 244903.
11. S. Ifergane, M. Pinkas, Z. Barkay, E. Brosh, V. Ezerski, O. Beeri, N. Eliaz, "The relation between aging temperature, microstructure evolution and hardening of Custom 465 stainless steel", *Materials characterization*, 127 (2017) 129-236.
12. S. Ifergane, R. Ben David, E. Sabatani, B. Carmeli, O. Beeri, N. Eliaz, "Hydrogen Diffusivity and trapping in custom 465 stainless steel", *J. Electrochemical Society*, 165(3) (2018) C107-C115.

13. O. Appel, S. Cohen, O. Beeri, N. Shamir, Y. Gelbstein, S. Zalkind, "Surface oxidation of TiNiSn (Half Heusler) alloy by oxygen and water vapor", *Materials*, 11 (2018) 2296-2311.
14. O. Beeri, S. I. Baik, A. I. Bram, M. Shandlov, D. N. Seidman, D. C. Dunand, "Effect of U and Th trace additions on the precipitation strengthening of Al-0.09Sc (at%) alloy", *Journal of Materials Science*, 54(4) (2019) 3485-3495.
15. O. Appel, G. Breuer, S. Cohen, O. Beeri, T. Kyratsi, Y. Gelbstein, S. Zalkind, "The initial stage in oxidation of ZrNiSn (Half Heusler) alloy by oxygen ", *Materials*, 12 (2019) 1509-1522.
16. O. Appel, T. Zaharoni, G. Breuer, O. Beeri, Y. Gelbstein, "Thermoelectric properties of $Ti_{0.3}Zr_{0.35}Hf_{0.35}Ni_{1.005}Sn$ half-Heusler alloy", *Journal of Applied Physics*, 126 (2019) 085110.
17. M. Rusanovsky, O. Beeri, S. Ifergane, G. Oren, " An End-to-End Computer Vision Methodology for Quantitative Metallography ", Submitted.

Oral presentations

1. O. Beeri, "Atom probe in materials science research", 42^{emes} Journees des Actinides, Bristol, UK, 2012.
2. S. Ifergane, E. Sabatani, Z. Barkay, O. Beeri, N. Eliaz, "Hydrogen effect on precipitation hardened stainless steel in aged and deformed conditions", *Israelectrochemistry 2015*, Ben Gurion University, Beer-Sheva, 15 October 2015.
3. S. Ifergane, O. Beeri, Z. Barkay, E. Sabatani, N. Eliaz, "Hydrogen influence on martensitic stainless steel harden by precipitates in different thermomechanical conditions", the CFRI 11th biannual conference, 11 December 2014, Israel.
4. S. Ifergane, R. Ben David, E Sabatani, B. Carmeli, O. Beeri, N. Eliaz, Hydrogen Diffusivity and trapping in custom 465 stainless steel, CRFI 2018 Corrosion Forum Israel 13th, Kfar Macabia, Ramat Gan, 8 November 2018.

Accepted but not presented¹:

5. M. Rusanovsky, G. Oren, O. Beeri, "MLography: An Automated Quantitative Metallography Model for Impurities Anomaly Detection using Data Mining and Deep Learning", Extended Abstract, SNA+MC2020 (Conference full name: Supercomputing in Nuclear Applications (SNA) and Monte Carlo (MC)) Japan (2020).
6. M. Rusanovsky, G. Oren, O. Beeri, "MLography: An Automated Quantitative Metallography Model for Impurities Anomaly Detection using Data Mining and Deep Learning", Extended Abstract, MS20. (Conference full name: SIAM Conference on Mathematical Aspects of Materials Science (MS20)) (2020).

¹ The following works submitted and accepted for presentation, but finally did not presented because we couldn't attain the conference. The works were published in the conferences proceeding.

Posters

1. O. Beeri, A. I. Bram, M. Shandalov, D. C. Dunanad, D. N. Seidman, "Isothermal and isochronal ageing behavior of dilute Al-Sc-AC (AC=Th,U) alloys", IMEC-15, Dead Sea, Israel, 28/2-1/3/2012.
2. S. Ifergane, O. Beeri, Z. Barkay, N. Eliaz, "Study of hydrogen effect on the mechanical properties of custom 465 PH stainless steel by correlative electron backscattered diffraction and tensile measurements", IMEC-15, Dead Sea, Israel, 28/2-1/3/2012.
3. O. Beeri, A. I. Bram, M. Shandalov, D. C. Dunanad, D. N. Seidman, "Isothermal and isochronal ageing behavior of dilute Al-Sc-AC (AC=Th,U) alloys", 42^{emes} Journees des Actinides, Bristol, UK, 2012.
4. S. Ifergane, Z. Barkay, O. Beeri, N. Eliaz, "Characterization of reverted austenite in a precipitation hardened stainless steel", EBSD Conference, London, March 2014.
5. S. Ifergane, O. Beeri, Z. Barkay, E. Sabatani, E. Priel, N. Eliaz, "Hydrogen effect on Custom 465 stainless steel", The 16th Israel Material Engineering Conference (IMEC-16), Haifa, Israel, 2014.
6. Omer Meroz, Tom Shalev, Ofer Beeri, Yaniv Gelbstein, "Thermoelectric properties improvement of n-type $(\text{Bi}_2\text{Te}_3)_{1-x}(\text{Bi}_2\text{Se}_3)_x$ ($0.2 \leq x \leq 0.4$) alloy by nano-features formation", The 16th Israel Material Engineering Conference (IMEC-16), Haifa, Israel, 2014.
7. S. Ifergane, Z. Barkay, O. Beeri, S. Levi, N. Eliaz, "Quantification of reverted austenite amount versus aging times and temperature in precipitation hardened stainless steel", EBSD Conference, University of Strathclyde Scotland, UK, 30-31 March 2015.
8. O. Appel, O. Beeri and Y. Gelbstein, " $\text{Ti}_{0.3}\text{Hf}_{0.35}\text{Zr}_{0.35}\text{Ni}_{1+8}\text{Sn}$ half-Heusler composite microstructure effect on thermoelectric properties", The 33rd Israel Vacuum Society (IVS), the Weizmann Institute of science, Israel-2015.
9. O. Appel, T. Zilber, S. Kalabukhov, O. Beeri and Y. Gelbstein, "The morphological effects of $\text{Ti}_{0.3}\text{Hf}_{0.35}\text{Zr}_{0.35}\text{Ni}_{1+8}\text{Sn}$ half-Heusler composite on the thermoelectric properties", The 17th Israel Material Engineering Conference (IMEC-17), Bar-Ilan University, Israel, 2016.
10. S. Ifergane, Z. Barkay, O. Beeri, V. Ezersky, N. Eliaz, "Transmission Kikuchi diffraction in the scanning electron microscope for imaging of reverted austenite in Custom 465 stainless steel", Golden Jubilee annual meeting ISM2016. Haifa 31/5-2/6/2016. **The best poster prize winner in materials science.**
11. S. Ifergane, Z. Barkay, E. Sabatani, O. Beeri, N. Eliaz, "Transmission Kikuchi Diffraction in SEM for imaging of reverted austenite in precipitation hardened stainless steel", Electron Back Scatter Diffraction, 4-5 April 2017, University of Oxford, UK. **Poster prize winner (second prize).**
12. O. Appel, T. Zaharoni, O. Beeri, Y. Gelbstein, "Enhanced thermoelectric efficiency of half-Heusler-full-Heusler composite", The 18th Israel Material Engineering Conference (IMEC-18), the Dead Sea, Israel, 2018.
13. O. Appel, S. Cohen, O. Beeri, Y. Gelbstein, S. Zalkind, "The oxidation of TiNiSn (Half-Heusler) alloy by oxygen and water vapor", IVS 2018, Leonardo Hotel Ramat Gan, Israel, 2018.

Before the last promotion

Peer reviewed journals

1. D. Dayan, O. Beeri, B. Hermann, A. Landau, A. Zahavi, Z. Livne and G. Kimmel, "Shear-Like Transformation in Dilute U-W Alloys", *Journal of Alloys and Compounds*, 226 (1994) 89-93.
2. I. Jacob, O. Beeri, E. Elish, "Interstitial Sites in The Hydrogen-Inactive Intermetallic Compounds $ZrPd_2$ and UPd_3 ", *Journal of Alloys and Compounds*, 221 (1995) 129-132.
3. O. Beeri and G. Kimmel, "Quantitative Phase Analysis Using the Rietveld Method for Samples in the Ti-Cr Binary Systems", *Advances in X-Ray Analysis* 41 (1998) by ICDD (on CD-ROM).
4. O. Beeri, D. Cohen, Z. Gavra, J. R. Johnson and M. H. Mintz, "High-Pressure Studies of the $TiCr_{1.8}-H_2$ System - Statistical Thermodynamics Above the Critical Temperature", *Journal of Alloys and Compounds*, 267 (1998) 113-120.
5. O. Beeri, D. Cohen, Z. Gavra, J. R. Johnson and M. H. Mintz, "High-Pressure Studies of Laves Phase Intermetallic Hydrides - Adaptation of Statistical Thermodynamic Models", *Journal of Alloys and Compounds*, 293-295 (1999) 14-18.
6. O. Beeri, D. Cohen, Z. Gavra, J. R. Johnson and M. H. Mintz, "Thermodynamic Characterization and Statistical Thermodynamics of the $TiCrMn-H_2(D_2)$ System", *Journal of Alloys and Compounds*, 299 (2000) 217-226.
7. O. Beeri, D. Cohen, Z. Gavra and M. H. Mintz, "The Interpretation of Hydrogen Isotope Effects and Their Relation to Microscopic Energy Related Parameters by Simplified Statistical Thermodynamic Models", *Physica Scripta*, T94, 88-97, 2001.
8. O. Beeri, D. Cohen, Z. Gavra and M. H. Mintz, "Site Occupation and Thermodynamic Properties of The $TiCr_{2-x}Mn_x-H_2$ ($0 \leq x \leq 1$) System: Statistical Thermodynamics Analysis", *Journal of Alloys and Compounds*, 352 (2003) 211-122.
9. J. E. Atteberry, D. S. Agosta, R. G. Leisure, O. Beeri and M. H. Mintz, "Elastic moduli of polycrystalline $TiCr_{1.8}$ over the temperature range of 3-410K", *Journal of Alloys and Compounds*, 365 (2004) pp 68-72.
10. O. Beeri and D. C. Dunand, "Internal Stress Plasticity in Pd Induced by Cyclic Hydrogen Charging", *Journal of Material Science and Engineering A*, 523 (2009) 178-183.

Oral presentations

1. D. Dayan, O. Beeri, B. Hermann, A. Landau, A. Zahavi, Z. Livne and G. Kimmel, "Metastable Phases in Dilute U-W Alloys", The 7th Israel Materials Engineering Conference, Technion – Haifa – Isreal, 27-29 November (1994) 297.
2. A. Munitz, A. Shtechman, C. Cotler, M. Talianker, O. Beeri, F. Simca, A. Sella and Z. Barkai, "Aging Characteristics of Al-6063 and their Impact on the Mechanical Properties and The Microstructure", The 7th Israel Materials Engineering Conference, Technion – Haifa – Isreal, 27-29 November (1994) 529.
3. O. Beeri, D. Cohen, Z. Gavra, J. R. Johnson and M. H. Mintz,, "Thermodynamics Studies of Unstable Intermetallic Hydrides - $TiCr_{1.8}$ and $TiCrMn$ ", The 8th Israel Materials Engineering Conference, Ben-Gurion University of The Negev, Beer-Sheva – Isreal, 16-17 April (1997) 70.
4. O. Beeri, D. Cohen, Z. Gavra, J. R. Johnson and M. H. Mintz, "High-Pressure Studies of Laves Phase Intermetallic Hydrides - Adaptation of Statistical Thermodynamic Models", The Second Conference on Material Science and Technology, AGIL 98, 25-26 November (1998) 56.
5. O. Beeri, D. Cohen, Z. Gavra, J. R. Johnson and M. H. Mintz, "Thermodynamic Characterization and Statistical Thermodynamics of the $TiCrMn-H_2(D_2)$ System", The 9th Israel Materials Engineering Conference, Technion – Haifa – Isreal, 6-7 December (1999) 98.
6. O. Beeri, D. Cohen, Z. Gavra and M. H. Mintz, "The Interpretation of Hydrogen Isotope Effects and Their Relation to Microscopic Energy Related Parameters by Simplified Statistical Thermodynamic Models", 5th International Workshop on "Hydrogen Isotopes in Solids", 17-19 May (2000), Stockholm, Sweden.
7. O. Beeri, David C. Dunand, David N. Seidman, "The Effect of Impurities on Precipitation in Al-Sc-RE (RE=La,Ce,Pr,Nd) Alloys, Studied by Conventional Methods and by Atom Probe Tomography", **Invited Lecture** in 13th Israel Materials Engineering Conference, IMEC 13, 9-10/12/2007, Technion - Haifa, Israel.

Posters

1. I. Halevy, O. Beeri, J. Hu, "Sc Strengthened Commercial Purity Aluminum Under High Pressure", 13th Israel Materials Engineering Conference, IMEC 13, 9-10/12/2007, Technion - Haifa, Israel.
2. I. Halevy, O. Beeri, and J. Hu, "Sc Strengthened Commercial Purity Aluminum under High-Pressure", AIRAPT-41, High Pressure Science and technology, Catania, 2007.
3. S. Ifergane, Z. Barkay, O. Beeri, N. Eliaz, "Study of Fracture Evolution in Copper Sheets By In situ Tensile Test and EBSD Analysis", IMEC-14, the 14th Israel Material Engineering Conference, Tel Aviv university, 2009.

Others

Patents:

1. O. Beeri, E. Nagar and S. Jacobi, "Method and System for Distributed Single-Stage Scheduling", IL Application No. 152233, 10 October 2002.

ICDD reference XRD cards (crystallographic reference data base):

2. O. Beeri and G. Kimmel, ICDD reference XRD card number: 52-817, Cr_{1.5}Mn_{0.5}Ti, (2000).
3. O. Beeri and G. Kimmel, ICDD reference XRD card number: 52-829, Cr_{1.75}Mn_{0.25}Ti, (2000).
4. O. Beeri and G. Kimmel, ICDD reference XRD card number: 52-816, Cr_{1.25}Mn_{0.75}Ti, (2000).