Eitan Tiferet Curriculum Vitae 2019

Personal

- Born: 22.9.1974
- Family Status: Married +5.
- E-mail: tiferete@gmail.com.

Education

- 1999-2003: **B .Sc.** in Nuclear Engineering, Faculty of Engineering, Ben Gurion University of the Negev, (IIIrd & IVth year with excellence).
- 2004-2008**: Ph.D**. Thesis: "Initial Water vapor Adsorption and Oxidation of Stressed Polycrystalline Uranium Surface-Effect of thermal Annealing", Thesis advisors: Dr. N. Shamir, Prof. M.H. Mintz and Prof. I. Jacob.
- 2014: Post doc. Sabbatical leave at the University of California Davis, calorimetric measurements of various Uranium compounds in Prof. Alexandra Navarotzky's lab.

Professional Experience

- Since 2015: Head of the Additive Manufacturing Center, Rotem Ind.
- Since 2007: Research Staff member, Department of Materials Science, NRCN, Israel.
    - Additive manufacturing, optimization of mechanical properties.
    - Powder technology densification systems (HIP, CIP, sintering).
    - Powder Particles shape & size distribution characterization.
    - Surface Analysis (XPS, AES, DRS).

Educational Activities

(a) Course taught

Additive Manufacturing of metals. BGU. (2018, 2019).

(b) Research students

Ph.D.

- From 2018: (with Dr. I. Orion) Mr. E. Damri, Thesis: "Simulation study of interactions between electron beam and powders during EBM additive manufacturing processes", Nuclear Engineering Unit, Ben Gurion University of the Negev.
- From 2018: (with Dr. E. Caspi and Prof. R. Shneck) Mr. G. Rafailov, Thesis: "Texture analysis of additively manufactured Ti64 by neutron diffraction", Materials Engineering department, Ben Gurion University of the Negev.
- From 2018: (with Prof. G. Ziskind) Mr. E. Landau, Thesis: "Thermo-mechanical properties of additively manufactured powder bed, electron beam melting processes", Nuclear Engineering department, Ben Gurion University of the Negev.
- From 2014: (with Dr. I. Orion) Mr. M. Geller, (exam passed), Thesis: "Low Energy Electron Transport Measurements in Solids", Nuclear Engineering department, Ben Gurion University of the Negev.
- 2010-2014: (with Dr. I. Orion) Mr. A. Givon, Thesis: "Low Energy Electrons Attenuation by Low Z Materials", Nuclear Engineering department, Ben Gurion University of the Negev.

M.Sc. - Full Research Theses

- 2014-2017: M.Sc. co-advisor of Mr. Z. Sefer, Thesis: "Additive Manufacturing: radiation Damage effects on AlSi10Mg ", Nuclear Engineering department, Ben Gurion University of the Negev.
- 2011-2013: M.Sc. co-advisor of Mr. G. Ainshnec, Thesis: "Monte Carlo Simulations of Low Electron Energy in Solids ", Nuclear Engineering department, Ben Gurion University of the Negev.
- 2009-2011: M.Sc. co-advisor of Mr. M. Geller, Thesis: "Fabrication & Analysis of Low Z Thin Layers", Nuclear Engineering department, Ben Gurion University of the Negev.
- 2009-2010: M.Sc. co-advisor of Mr. A. Givon, Thesis: "Low Energy Electrons Attenuation by Low Z Materials", Nuclear Engineering department, Ben Gurion University of the Negev.
- 2002-2004: Head instructor, advanced laboratory. Teaching and Research assistant, Nuclear Engineering department, Ben Gurion University of the Negev.

Eitan Tiferet, List of Publications.

1. M.Geller, I.Orion. E.Golan G.R.Castro, J.Rubio-Zuazo, E.Tiferet, "Electron inelastic mean free path in carbon and polycarbonate using a newly developed wide spectrum measurement method", Journal of Electron Spectroscopy and Related Phenomena, Volume 229, December 2018, Pages 85-93.
2. S. C. Vogel S. Takajo M. A. Kumar E. N. Caspi A. Pesach E. Tiferet O. Yeheskel, Ambient and High-Temperature Bulk Characterization of Additively Manufactured Ti-6Al-4V Using Neutron Diffraction, JOM (2018) 70: 1714. https://doi.org/10.1007/s11837-018-3038-2.
3. Asaf Pesach, Eitan Tiferet, Sven C. Vogel, Michael Chonin, Alexander Diskin, Lior Zilberman, Oleg Rivin, Ori Yeheskel, El'ad N. Caspi, "Texture Analysis of Additively Manufactured Ti-6Al-4V using Neutron Diffraction", Volume 23, October 2018, Pages 394-401.
4. T.Sol, S.Hayun, D.Noiman, E.Tiferet, O.Yeheskel, O.Tevet, "Nondestructive ultrasonic evaluation of additively manufactured AlSi10Mg samples", Additive Manufacturing, vol. 22, August 2018, Pages 700-707.
5. Vitaly Paris, Amitai Cohen , Eli Gudinetsky , Refael Hevroni, Shmuel Samuha, Shmuel Osovsky , Eitan Tiferet, Arnon Yosef-Hai, Study of flow stress and spall strength of additively manufactured Ti-6-4 alloy, EPJ Web of Conferences 183, 03003 (2018) https://doi.org/10.1051/epjconf/201818303003, DYMAT 2018.
6. X. Guo, E. Tiferet et al, "U (5) in Metal urinates, a combined experimental and theoretical study of MgUO4, UCrO4 and FeUO4", Royal Society of Chemistry, Dalton Transactions, (2016), 45, 4622 – 4632.
7. X. Guo, C. Lipp, E. Tiferet et al, Dalton tranactions, "Structure and thermodynamic stability of UTa_3O_{10}, a U(V)-bearing compound", DOI: 10.1039/C6DT02843H, 18892-18899, 45, 2016.
8. R. Carmi, E. Tiferet, I. Alon, E. Chakotay, G. Gutman, R. Shneck, A Bussiba, "Damage characterization in qausi-static mode of Ti-6Al-4V additive manufacture by Acoustic Emission", Progress in Acoustic Emission XVIII (2016) JSNDI p. 407-412.
9. E. Tiferet, O. Rivin, M. Ganor, H.Ettedgui, O. Ozeri , E. N. Caspi, O. Yeheskel. "Structural investigation of selective laser melting and electron

beam melting of Ti-6Al-4V using neutron diffraction", Additive Manufacturing, 10 (2016) 43-46.

10. I. Rosenthal, E. Tiferet, M. Ganor, A. Stern, " Post-processing of AM-SLM AlSi10Mg specimens: Mechanical properties and fracture behavior", Welding Equipment and Technology, vol. 26, ISSN 1221-4639, p. 33-39, (2015).
11. I. Rosenthal, E. Tiferet, M. Ganor, A. Stern, "Selective Laser Melting Additive Manufacturing:AlSi10Mg Powder Characterization", Welding Equipment and Technology, vol. 25, ISSN 1221-4639, p. 35-40, (2014).
12. E. Tiferet, T. Shareva, M. Nyman, C. Bo, A. Gil, A. Navarotsky, "The Energy Landscape of Uranil-peroxide species", Chem. Eur. J. (2014), 20, 3536. *Front Cover Article.*
13. A. Givon , E. Tiferet, G. R. Castro, J. R. Zuazo, E. Golan, I. Yaar, I. Orion. "Hard X-ray photoelectron Spectroscopy study of Electron Spectral Structure beyond the known signal Electron peak", J. Chem. Chem. Eng. 7 (2013) 601-605.
14. E. Tiferet, G. Kimmel, G. Danieli, D. Moyilianski, O. Yeheskel, "Effect of consolidation pressure up to1.8 GPa on the sintering of nanocrystalline Y_2O_3, Journal of the European Ceramic Society 33 (2013), 1947-1954.
15. A. Givon , E. Tiferet, I. Orion, "Algorithm for evaluation layer thickness based on electron average energy shift analysis", Nuclear instruments and methods in physics research, B 288, (2012), 23-27.
16. Halevy, R Carmon, M L Winterrose1, O Yeheskel, E Tiferet and S Ghose, "Pressure-Induced Structural Phase Transitions in Y(2)O(3) Sesquioxide", J. Phys.: Conf. Ser. 215 012003.
17. E. Tiferet, M.H. Mintz, S. Zalkind, N. Shamir, "Interaction of water vapor and hydrogen water mixtures with polycrystalline uranium surface", Annales UMCS, Chemistry, Warsaw, vol. 63, (2010), p. 271-286.
18. E. Tiferet, M.H. Mintz, I. Jacob, N. Shamir, "Inhibition of hydrogen chemisorption on uranium surfaces by traces of water vapor", Surface science, vol. 601, Issue 21, (November 2007), p. 4925-4930.
19. E. Tiferet, M.H. Mintz, S. Zalkind, I. Jacob, N. Shamir, "Heat treatment effects on the surface chemisorption behavior of strained uranium: The H_2O/U reaction", Journal of alloys and compounds, vol. 444-445, (October 2007), p. 177-183.

20. E. Tiferet, M.H. Mintz, S. Zalkind, I. Jacob, N. Shamir, " Interaction of water vapor and polycrystalline uranium surfaces – the low temperature regime", Surface science, vol. 601, Issue 4, (February 2007), p. 936-940.
21. N. Shamir, E. Tiferet, S. Zalkind, M.H. Mintz, " Interaction of water vapor and polycrystalline uranium surfaces", Surface science, vol. 600, Issue 3, (February 2006), p. 657-664.