

Born; March 8, 1965

Citizenship: Israeli

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Academic Background:

1992-1995 M.Sc. thesis: "Investigation of Microstructure of Ternary Uranium Alloys U-Ti-W", Dep. of Materials Engineering, Ben-Gurion University of the Negev, Israel.

1988-1992 B.Sc. in Materials Engineering, Dep. of Materials Engineering, Ben-Gurion University of the Negev, Israel.

Research Collaboration:

2010 -2015 Study on the dynamic behavior of magnesium alloys in electromagnetic pulse forming. Dep. of Materials Engineering and mechanical Engineering, Ben-Gurion University of the Negev, Israel.

Employment:

10/2018-
to present Director of Technological Infrastructure, NRCN.

2015-2018 Senior Assistant to the Director General of Israel Atomic Energy Commission.

2014 -2015 Researcher at the R&D Metallurgical Processing Lab, NRCN, Beer-Sheva, Israel.

2007-2014 Head of R&D Metallurgical Processing Lab (Casting, Forming and Welding), NRCN, Beer-Sheva, Israel.

2002-2007 Head of Metal Casting, Heat treatment, Machining & Applications Section.

2005-2006 Sabbatical on Industrial, Welding & system Engineering, OSU, OH.

1997-2002 Development of Casting processes, NRCN.

1995-1997 Studied microstructure evaluation of uranium alloys.

1992-1995 Research student, studied physical metallurgy.

Professional Courses:

- 2004 "Heat treatments of steels", ASM, Cleveland, OH.
2000 "Critical chain project management", NRCN.
2000 "Thermo-Calc Kurs", KTH, Stockholm, Sweden.
1999 "4th Stockholm school on electron microscopy", Stockholm University, Stockholm, Sweden.

Awards & scholarships:

- 2017 2016 director general of NRCN award for outstanding development and implementation.
2004 NRCN employee of the year for 2003.
1998-2001 Katzir Scholarship, awarded to promising Israeli scientists specializing in the field of engineering, electronics and core sciences.

Students Adviser for Final Engineering Project

The final engineering projects were carried out as part of the requirements for a B.Sc. degree in the Dep. of Materials Engineering, Ben-Gurion University of the Negev, Israel:

- 2017 "Formability of AZ80 under Electromagnetic Forming".
2014 "Characterization of the Microstructure and Failure of Pure Magnesium under Dynamic Loading".
2014 "The Dynamic Ductility of AZ31 before Failure".
2013 "Microstructure Evolution of AZ31 Magnesium Alloy Under Dynamic Loading".
2013 "Dynamic Properties of AA6063-O. A Comparison Between Lab Results and Numeric Simulation".
2012 "The influence of alloying elements in magnesium alloys and dimensions on the mechanical behavior under dynamic loading".
2011 "Mechanical and structural characterization of AZ31 magnesium alloy under dynamic loading".
2000 "Microstructure characterization of welding U-0.75wt%Ti alloy".
1999 "Investigation of homogenized and quenched U-Mo alloys depending of the Mo concentration".

Publications

1. Kahana E., Pinks M., Bayner J., Grinberg A. & Gutman E., "Environmental Effect on Graphite/Epoxy Composites", Proceeding of the 6th Israel Conference on Materials, Beer-Sheva, Israel, 1993.
2. Kahana E., "Investigation of Microstructure of Ternary Uranium Alloys U-Ti-W", thesis submitted for M.Sc. degree, Ben-Gurion University of the Negev, Israel, July 1995.
3. Kahana E., Talianker M. & Landau A., "Formation of the Monoclinic α "- Phase in Quenched U-3.6at%Ti-4.7at%W Alloy", *Journal of nuclear materials*, 246, (1997), 144-149.
4. Kahana E., Landau A. & Talianker M., "Investigation of Microstructure of Ternary Uranium Alloys U-Ti-W", Proceeding of the 8th Israel Materials Engineering Conference- IMEC VIII, Ben-Gurion University of the Negev, Beer-Sheva, Israel, April 1997.
5. Kahana E., Landau A. & Talianker M., "Investigation of Annealed Structure in U-Nb-W Alloys", Proceeding of the 9th Israel Materials Engineering Conference- IMEC 9, Technion- Israel Institute of technology, Haifa, Israel, December 1999.
6. Zidon Y., Kahana E., Dahan I., Venkert A., "Microstructure Characterization of Welded U-0.75wt%Ti", Proceeding of the Welding and Joining 2000, Tel-Aviv, Israel, July 2000.
7. Gelbstein M., Fromeen N., Dahan I., Kahana E., Livnee Z., "The influence of Ti concentration on the wetting of 1020 Steel on Alumina", Proceeding of the 10th Israel Materials Engineering Conference- IMEC 10, Dead Sea, Israel, February 2002.
8. Kahana E., Talianker M., Landau A. & Venkert A., "The Morphology and Structure of Annealed U-Nb-W Alloys", Proceeding of the 2003 TMS Annual Meeting, Actinide materials Symposium, San Diego, CA, March 2003.
9. Edry I., Rittel D., Pinkas M., Sariel J., Ifargan S., Dahan I., Kahana E., Chonin M., "Static and Dynamic Mechanical Properties of Welded and Heat treated Ti-6Al-4V alloy", Proceeding of the 12th Israel Materials Engineering Conference- IMEC 12, Beer-Sheva, Israel, March 2006.
10. Rokhlin S. I., Kahana E., Wang L., Bin X., Nagy P. B., Blodgett M. P., "Characterization of Cold Work in Nickel-Base Superalloys by Instrumented Nanoindentation", proceeding of the 17th AeroMat Conference & Exposition, Seattle, Washington, May 2006.

11. Rokhlin S. I., Yang L., Kahana E., Wang L., Bin X., Nagy P. B., Blodgett M. P., "Characterization of Cold Work in Shot Peened Nickel-Base Superalloy by Nanoindentation", proceeding of the 18th AeroMat Conference & Exposition, Baltimore, Maryland, June 2007.
12. Nahamany M., Binyamin M., Levy S., Heller A., Ifargan S., Tamsut S., Ben-Artzy A., " Micro & Macrostructure Examination of a Resistance Seam Weld of AISI-1010 Steel", proceeding of the Welding and joining 2012, Ramat-Gan, Israel. January 2012.
13. Avraham S., Moshe G., Snir Y., Shmolevich M., Kahana E., Edry I., " The Dissolution Kinetics of Sn-Co Naster Alloy in Pure Sn", Proceeding of the 15th Israel Materials Engineering Conference- IMEC 15, Dead Sea, Israel, March 2012.
14. Abramovich A., Shneck R.Z., Sadot O., Ram O., Ben-Artzy A., Kahana E., "Mechanical and Structural Characterization of AZ31 Magnesium Alloy Under Dynamic Loading", Proceeding of the 15th Israel Materials Engineering Conference- IMEC 15, Dead Sea, Israel, March 2012.
15. Bargig T., Mor-Yossef R., Abramovich A., Sadot O., Ram O., Ben-Artzy A., Shneck R.Z., Kahana E., "The Influence of Alloying Elements in Magnesium Alloys on the Mechanical Behavior Under Dynamic Loading", Proceeding of the 15th Israel Materials Engineering Conference- IMEC 15, Dead Sea, Israel, March 2012.
16. Priel E., Sadot O., Cohen D. Kahana E., "Investigation of AA-6063-O ring expansion and fragmentation at high strain rates: Finite element analysis validated by experimental observation", Proceeding of the Iscm-34, Tel-Aviv, Israel, April 2013.
17. Sagi S., Kuntz A., Kahana E., Shneck R., Sadot O., "Microstructure Evolution of AZ31 Magnesium Alloy Under Dynamic Loading", Proceeding of the 16th Israel Materials Engineering Conference- IMEC 16, Haifa, Israel, February 2014.
18. Kahana E, Ben-Arzy A., Sadot O., Shneck R.Z., " Microstructural evolution of AZ31 magnesium alloy after high strain rate expanding rings tests", *Materials Science & Engineering A*, 641 (2015), 274–280.
19. Samuha S., Kahana E., Sadot O., Shneck R.Z., " Improved formability of Mg-AZ80 alloy under high strain rate in expanding ring experiments ", *Materials* 2018, 11 (2), 329.