

Curriculum Vitae – Amir Hen.

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Personal:

Birth date: 20 November 1982
Born in: Jerusalem, Israel.
Citizenship: Israel
Married

Summary of qualifications

Education:

Presently enrolled in studies for PhD in Nuclear Engineering,
Ben Gurion University (BGU), Beer-Sheva, Israel

M.Sc Nuclear engineering, Ben Gurion University, Beer-Sheva, Israel.
(Magna cum laude)
(2012)

BSC Physics (Comprehensive course) and Mathematics
(Comprehensive course), Hebrew University, Jerusalem, Israel
(June 2007).

Matriculation Certificate, Ziv High School (Physics – Math –
Computers track)
(June 2000)

Professional training / Work experience:

Work Experience \ Training:

Operation of active glove-boxes (certified by ITU) and handling of
nuclear material (preparation, encapsulation and decontamination).

Physical properties measurements (X-Ray diffraction, SQUID
magnetometry, specific heat and Mössbauer effect).

High vacuum systems, high pressure systems and cryogenic.

October 2011 – now:

PhD Student, ITU (Institute for Trans Uranium elements) under the
tutelage of Prof. Dr. Roberto Caciuffo (ITU) and Dr. Itzhak Halevy
(NRCN – Nuclear Research Center Negev), within the framework of
the IAEC (Israeli atomic energy commission) – JRC (joint research
center) collaboration.

October 2009 – October 2011:

Research assistant, NRCN (Nuclear Research Center Negev) under the
tutelage of Dr. Itzhak Halevy and as a trainee at the ITU (Institute for
Trans Uranium elements) within the framework of the IAEC (Israeli
atomic energy commission) – JRC (joint research center)
collaboration.

Awards:

- Student research award: in recognition of excellent research and presentations within the fields of actinides magnetism, forensics and environmental monitoring.
42^{èmes} Journées des Actinides, Bristol, Southwest England April 2012–18–21

Recommendations:

Recommendation letters will be supplied upon request.

Languages:

Hebrew, native tongue.
English, high level (reading, writing, speaking).
German, level B1A.

Military Service:

February 2001 – August 2002:
Commander, Intelligence service.

Computer Literacy

C++.
FORTRAN.
Lab-view.

List of publication

1. Itzhak Halevy, Shlomo Haroush, Yosef Eisen, Ido Silberman, Dany Moreno, Amir Hen, Mike L. Winterrose, Sanjit Ghose and Zhiqiang Chen
Crystallographic and magnetic structure of HAVAR under high-pressure using diamond anvil cell (DAC)
Hyperfine Interactions (2010) 197:135–141
DOI 10.1007/s10751-010-0222-3
[\(PDF\)](#)
2. Itzhak Halevy, Amir Hen, Elad N. Caspi, Ilan Yaar, Roberto Caciuffo, Eric Colineau and Franck Wastin
Crystallographic And Magnetic Properties of the two New Actinides Compounds: Np₂Co₁₇ and Np₂Ni₁₇.
(Submitted IOP Conference Series: Materials Science and Engineering)
3. Itzhak Halevy, Amir Hen, Amir Broide, Mike L. Winterrose, S. Zalkind and Zhiqiang Chen
High-pressure irreversible amorphization of La_{1/3}NbO₃
Journal of Modern Physics ISSN 2153-1196
Volume: 02, Issue: 05, (323), 2011.
[\(PDF\)](#)
4. Halevy, A. Hen, I. Orion, E. Colineau, R. Eloirdi, J.-C. Griveau, P. Gaczyński, F. Wilhelm, A. Rogalev, J.-P. Sanchez, M. L. Winterrose, N. Magnani, A. B. Shick and R. Caciuffo
Structural, electronic, and magnetic characteristics of Np₂Co₁₇
PHYSICAL REVIEW B 85, 014434 (2012)
[\(PDF\)](#)
5. A. Hen, S. Heathman, R. Eloirdi, J.-C. Griveau, S. Elgazzar, P. M. Oppeneer, I. Halevy, I. Orion, and R. Caciuffo
Structural investigation of Np₂Co₁₇ and analogue compounds under pressure
PHYSICAL REVIEW B 90, 054107 (2014)
[\(PDF\)](#)
6. A. Hen, E. Colineau, R. Eloirdi, J.-C. Griveau, N. Magnani, F. Wilhelm, A. Rogalev, J.-P. Sanchez, A. B. Shick, I. Halevy, I. Orion, and R. Caciuffo.
Low temperature magnetic properties of NpNi₅.
PHYSICAL REVIEW B 90, 054408 (2014)
[\(PDF\)](#) <http://arxiv.org/abs/1407.6825> Password 6anye
7. Oleg Rivin, Amir Broide, Silvie Maskova, Matthew S. Lucas, Amir Hen, Itzhak Orion, Shai Salhov, Michael Shandalov, Antonio Moreira Dos Santos, Jamie Molaison, Zhiqiang Chen, Itzhak Halevy
High pressure neutron powder diffraction study of Fe_{1-x}Cr_x with and without hydrogen exposure.
Hyperfine interactions DOI 10.1007/s10751-014-1104-x (2014)
[\(PDF\)](#)
Submitted/To be submitted:
 1. Site-selective magnetic order of neptunium in Np₂Ni₁₇ (in progress)

Conference contribution

1. CRYSTALLOGRAPHIC STRUCTURE OF HAVAR UNDER HIGH PRESSURE USING DIAMOND ANVIL CELL (DAC) (Poster)
Itzhak Halevy, Shelomo Haroush, Yosef Eisin, Ido Silberman, Dany Moreno, Amir Hen, Sanjit Ghose and Zhiqiang Chen
The 14th Israel Materials Engineering Conference (IMEC-14),
13-14 December, 2009
2. Magnetic Properties of the two New Actinides Compounds: $\text{Np}_2\text{Co}_{17}$ and $\text{Np}_2\text{Ni}_{17}$
Itzhak Halevy, Amir Hen, Elad N. Caspi, Ilan Yaar, Roberto Caciuffo, Eric Colineau, Rachel Eloirdi, J.C. Griveau and Piotr Gaczynski
1st Bilateral Workshop of the JRC-IAEC Cooperation
2-6 May 2010, Ein-Gedi, Dead Sea – ISRAEL
3. CRYSTALLOGRAPHIC STRUCTURE AND MAGNETIC PROPERTIES OF HAVAR UNDER HIGH PRESSURE USING DIAMOND ANVIL CELL (DAC)
I. Halevy, S. Haroush, A. Hen, Y. Eisin, I. Silberman, D. Moreno, S. Ghose and Z. Chen
International Conference on Hyperfine Interactions and International Symposium on Nuclear Quadrupole Interactions (HFI)
12-17 September 2010 CERN, Swizerland, pp 187.
4. Crystal Structure of Yttria and Scandia under Isothermal Pressure.
I. Halevy, S. Barzilai, M. L. Winterrose, A. Hen, R. Carmon, S. Ghose, E. Tiferet and O. Yehekel.
3rd International Congress on Ceramics (ICC3), 14-8 Nov 2010 Osaka, Japan
Organized by the Ceramic Society of Japan (CerSJ) Abs. 1715.
5. Magnetic properties, crystallographic structure and electronic properties of $\text{Np}_2\text{Co}_{17}$ and $\text{Np}_2\text{Ni}_{17}$.
A. Hen, I. Halevy, E. Colineau, R. Eloirdi, J-C. Griveau, P. Gaczyński, E.N. Caspi, I. Orion, G. Kimmel, I. Yaar, W. Potzel, R. Caciuffo and J. Gal
41èmes Journées des Actinides, Stará Lesná, Slovakia 7-12 April 2011.
6. Structural, Electronic and Magnetic Characteristics of $\text{Np}_2\text{Co}_{17}$.
I. Halevy, A. Hen, I. Orion, E. Colineau, R. Eloirdi, J. C. Griveau, P. Gaczynsky, F. Wilhelm, A. Rogalev, J.-P. Sanchez, M. L. Winterrose, N. Magnani, A. Shick and R. Caciuffo.
The 57th Meeting of the Israel Physical Society,
25th December 2011, Technion, ISRAEL
7. Crystallographic Structure and Magnetic Properties of HAVAR and HAVAR-H Under High Pressure using Diamond Anvil Cell (DAC).
I. Halevy, S. Haroush, Y. Eisin, I. Silberman, D. Moreno, A. Hen, S. Ghose and Z. Chen
The 26th Conference of the Nuclear Societies in Israel
21-23 February 2012, Meridian Hotel, Dead Sea, Ein Bokek, ISRAEL

8. Progress in the magnetic study of $\text{Np}_2\text{Co}_{17}$.
I. Halevy, A. Hen, I. Orion, E. Colineau, R. Eloirdi, J. C. Griveau, P. Gaczynsky, F. Wilhelm, A. Rogalev, J.-P. Sanchez, M. L. Winterrose, N. Magnani, A. Shick and R. Caciuffo.
The 26th Conference of the Nuclear Societies in Israel
21-23 February 2012, Meridian Hotel, Dead Sea, Ein Bokek, ISRAEL
9. An Experimental Study of Indoor Dispersion of Radioactive Materials.
A. Sharon, I. Halevy, Z. Berenstetin, A. Lorber, E. Peri, M. Levy, S. TabibZada, A. Hen, D. Sattinger and I. Yaar.
The 26th Conference of the Nuclear Societies in Israel
21-23 February 2012, Meridian Hotel, Dead Sea, Ein Bokek, ISRAEL
10. Micro-Copter in indoor and outdoor Dispersion of Radioactive Material, "Green Field" and "Red House" projects.
I. Halevy, S. Haroush, A. Hen, M. Ghelman, T. Ridnik and I. Yaar.
The 26th Conference of the Nuclear Societies in Israel
21-23 February 2012, Meridian Hotel, Dead Sea, Ein Bokek, ISRAEL
11. High-Pressure Study of Fe-Cr Alloys.
I. Halevy, M. S. Lucas, A. Broide, M. L. Winterrose, A. Hen and Z. Chen
The 15th Israel materials Engineering Conference
28 February – 01 march 2012, Le Meridian Hotel, Dead Sea, Ein Bokek, ISRAEL
P-264
12. Crystallographic Structure and Magnetic Properties of HAVAR and HAVAR-H Under High Pressure using Diamond Anvil Cell (DAC).
I. Halevy, A. Hen, S. Haroush, Y. Eisin, I. Silberman, D. Moreno, S. Ghose and Z. Chen.
The 15th Israel materials Engineering Conference
28 February – 01 march 2012, Le Meridian Hotel, Dead Sea, Ein Bokek, ISRAEL
P-302
13. Progress in the magnetic study of $\text{Np}_2\text{Co}_{17}$.
I. Halevy, A. Hen, I. Orion, E. Colineau, R. Eloirdi, J. C. Griveau, P. Gaczynsky, F. Wilhelm, A. Rogalev, J.-P. Sanchez, M. L. Winterrose, N. Magnani, A. Shick and R. Caciuffo.
The 15th Israel materials Engineering Conference
28 February – 01 march 2012, Le Meridian Hotel, Dead Sea, Ein Bokek, ISRAEL
P-305
14. Progress in the magnetic study of $\text{Np}_2\text{Co}_{17}$
A. Hen, I. Halevy, I. Orion, E. Colineau, R. Eloirdi, J.-C. Griveau, P. Gaczyński, F. Wilhelm, A. Rogalev, J.-P. Sanchez, M. L. Winterrose, N. Magnani, A. B. Shick and R. Caciuffo
42^{èmes} Journées des Actinides, Bristol, Southwest England 18–21 April 2012 P-32

15. New aspects in nuclear forensics.
I. Halevy, A. Hen and A. Sharon.
42^{èmes} Journées des Actinides, Bristol, Southwest England 18–21 April 2012 P-58
16. Nuclear forensics analytical approaches and simulations.
I. Halevy, A. Hen and A. Sharon.
42^{èmes} Journées des Actinides, Bristol, Southwest England 18–21 April 2012 P-60
17. Mikro-Kopter, Chopper and mini UAV system for monitoring a radioactive dispersion scene in RDD scenario.
A. Hen, I. Halevy, A. Sharon, E. Boubilil, M. Ghelman, T. Ridnik and I. Yaar
42^{èmes} Journées des Actinides, Bristol, Southwest England 18–21 April 2012 P-61
18. Nuclear terrorism: A Brief review of threats and response.
I. Halevy, A. Hen and A. Sharon.
42^{èmes} Journées des Actinides, Bristol, Southwest England 18–21 April 2012 P-63
19. XMCD in Magnetic Properties Research.
A. Hen, I. Halevy, I. Orion, E. Colineau, R. Eloirdi, J.-C. Griveau, P. Gaczyński, F. Wilhelm, A. Rogalev, J.-P. Sanchez, M. L. Winterrose, N. Magnani, A. B. Shick and R. Caciuffo
42^{èmes} Journées des Actinides, Bristol, Southwest England 18–21 April 2012 P-68
20. Mössbauer and SQUID under high pressure in actinides research.
I. Halevy, A. Hen and M. Pasternak
42^{èmes} Journées des Actinides, Bristol, Southwest England 18–21 April 2012 P-69
21. Superconductivity and Mössbauer effect in actinides
A. Hen, I. Halevy, I. Orion, E. Colineau, R. Eloirdi, J.-C. Griveau, P. Gaczyński, T. Klimczuk, J.-P. Sanchez, A. B. Shick and R. Caciuffo
43^{èmes} Journées des Actinides, Sestri Levante, April 6-9th 2013 III-O12
22. Electronic and Magnetic Properties of NpNi₅.
A. Hen, E. Colineau, R. Eloirdi, J.-C. Griveau, J.-P. Sanchez, A. B. Shick, I. Halevy, I. Orion and R. Caciuffo
43^{èmes} Journées des Actinides, Sestri Levante, April 6-9th 2013 VII-O35
23. Structural, Electronic and Magnetic Properties of NpNi₅ (Poster)
A. Hen, E. Colineau, R. Eloirdi, J. – C. Griveau, I. Halevy, I. Orion, J.-P. Sanchez and R. Caciuffo
9th International Conference on the Chemistry and Physics of the Actinide Elements
ACTINIDES 2013, 21 - 26 July 2013, Karlsruhe, Germany
24. Electronic and Magnetic Properties of NpNi₅ (Poster)
A. Hen, E. Colineau, R. Eloirdi, J. – C. Griveau, J.-P. Sanchez, A. B. Shick, I. Halevy, I. Orion and R. Caciuffo
The 59th Annual IPS meeting, Weizmann, Israel (12/2013), Material Physics II; p. 25

25. Electronic and Magnetic Properties of NpNi₅.
A. Hen, E. Colineau, R. Eloirdi, J. - C. Griveau, J. - P. Sanchez, A. B. Shick, I. Halevy, I. Orion, R. Caciuffo
The 26th Conference of the Nuclear Societies in Israel , 21-23/2/2014, Le Meridian Hotel, Dead Sea, Ein Bokek, ISRAEL
26. Electronic and Magnetic Properties of NpNi₅.
A. Hen, E. Colineau, R. Eloirdi, J.-C. Griveau, J.-P. Sanchez, A. B. Shick, I. Halevy, I. Orion, and R. Caciuffo
The 16th Israel Materials Engineering Conference (IMEC-16), February 23-25, 2014 Technion, Haifa ISRAEL O-435
27. X-Ray Magnetic Circular Dichroism and Mossbauer Effect in Actinides (School)
A.Hen,
44^{èmes} Journées des Actinides, Ein Gedi, Israel, April 22-28th 2014
28. Recent progress in the investigation of the electronic and magnetic properties of NpNi₅.
A. Hen, E. Colineau, R. Eloirdi, J.-C. Griveau, J.-P. Sanchez, F. Wilhelm, A. Rogalev, A. B. Shick, I. Halevy, I. Orion, and R. Caciuffo
44^{èmes} Journées des Actinides, Ein Gedi, Israel, April 22-28th 2014
29. Structural investigation of Np₂Co₁₇ and analogue compounds under high pressure.
A. Hen, S. Heathman, R. Eloirdi, J.-C. Griveau, S. Elgazzar, P. M. Oppeneer, I. Halevy, I. Orion, and R. Caciuffo
44^{èmes} Journées des Actinides, Ein Gedi, Israel, April 22-28th 2014 (Invited)
30. Mössbauer and NMR spectroscopy of U_{0.15}Np_{0.85}O₂ (Poster)
A. Hen, L. Martel, Y. Tokunaga, E. Colineau, J.-C. Griveau, and R. Caciuffo
44^{èmes} Journées des Actinides, Ein Gedi, Israel, April 22-28th 2014
31. Structural investigation of Np₂Co₁₇ and analogue compounds under pressure.
A. Hen, S. Heathman, I. Orion, E. Colineau, R. Eloirdi, J.-C. Griveau, P. Gaczynski, F. Wilhelm, A. Rogalev, J.-P. Sanchez, M. L. Winterrose, S. Elgazzar, P. M. Oppeneer, I. Halevy, N. Magnani, A. B. Shick and R. Caciuffo
11th Prague Colloquium on f-Electron Systems, 2nd-5th, July 2014 P-24