CURRICULUM VITAE OF ILAN YAAR

Personal Data

October 2019

Name: Ilan Yaar, Ph.D.

Date and Place of Birth: June 7, 1961, Israel

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Nuclear Research Center Negev
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Education

B.Sc. - 1984-1987 Nuclear Engineering, Ben-Gurion University of the Negev, Beer-Sheva.

M.Sc. & Ph.D. – 1987-1992 Nuclear Engineering, Ben-Gurion University of the Negev, Beer-Sheva.

Major Research Fields

- Nuclear Reactors Physics.
- Applications of Monte-Carlo simulations and experimental radiation measurements for the prevention, detection and response to radiological terror.
- Study of the electronic and magnetic properties of metallic compounds using experimental techniques and Density Functional Theory (DFT) calculations.

Employment History

2016 - Today Task Manager, Nuclear Research Center Negev, Beer-Sheva, Israel.

2013 - 2015 Sabbatical - Manager Materials Science Research, Ministry of Energy, Office of the Chief Scientist.

2008 - 2013 Head of the Research and Development Division, Nuclear Research Center Negev, Beer-Sheva, Israel.

2005 - 2008 Deputy Director, Research and Development Division, Nuclear Research Center Negev, Beer-Sheva, Israel.

2006 - 2007 Guest lecturer, Nuclear Engineering Department, Ben-Gurion University, Beer-Sheva.

2003 – 2004 Deputy Director, Physics Department, Nuclear Research Center Negev, Beer-Sheva, Israel.

2002 – 2003 Sabbatical at the Laboratory for Threat Material Detection, Department of Mechanical Engineering, UNB, Fredericton, NB, Canada E3B 5A3.

1991 - 2002 Research scientist, Physics Department, Nuclear Research Center Negev, Beer-Sheva, Israel.

Courses taught at the Ben Gurion University in the Negev (BGU):

Use of radiation in industry and research (2006, 2007 and 2012)

Excellence award for teaching from the engineering faculty (Nov 2007)

Membership in Professional Associations

- Honorary Research Associate, University of New Brunswick (UNB), Fredericton, NB, Canada E3B 5A3 (2004 - today).
- Member of the Israel Physics Society.
- Associate member of the Israel Nuclear Society Organizing Committee since 2005.
- **President of the Israel Nuclear Society (INS) since 2015.**
- **Associate Editor in the American Society of Mechanical Engineers (ASME) Journal of Nuclear Engineering and Radiation Science (NERS) since 2016.**

Member in conferences organizing committee

1. **The 13th International Conference on Hyperfine Interactions and The 17th International symposium on Nuclear Quadrupole Interactions (HFI/NQI 2004)**, Bonn, Germany, 22-27 August 2004.

2. **NATO Science for Peace and Security workshop, Countering Nuclear/ Radiological Terrorism**, 2-6 October 2005, Yerevan, Armenia.

3. **The 23rd Conference of the Israel Nuclear Societies**, 15-16 February 2006, Holiday-Inn Crown-Plaza, Dead Sea, Israel.

4. **The XIV International Conference on Hyperfine Interactions**, August 5-10, 2007, Iguassu Falls (Argentina-Brazil).

5. **NATO Science for Peace and Security workshop, Prevention, Detection and Response to Nuclear and Radiological Threats (PDR-2007)**, 3-6 May 2007, Yerevan, Armenia.

6. **The 25th Conference of the Israel Nuclear Societies**, 16-18 Feb 2010, Crown Plaza Hotel, Dead Sea, Ein-Bokek, Israel, 164-64.

7. **The 26th Conference of the Israel Nuclear Societies**, 21-23 Feb 2012, Meridian Hotel, Dead Sea, Israel.

8. **The 27th Conference of the Israel Nuclear Societies,** February 11-13, 2014, Hotel Daniel Dead Sea, Israel.

9. **The 28th Conference of the Israel Nuclear Societies** April 12-14 2016, Dan-Panorama hotel, Tel-Aviv, Israel.

10. **The 29th Conference of the Israel Nuclear Societies** May 8-10 2018, Daniel Hotel, Herzelia, Israel.

Grants and Research Proposals

1. Research and Development Division Canada Border Services Agency grant (2004) – **Passive detection and identification of a concealed ^{241}Am source**.

2. Research and Development Division Canada Border Services Agency grant (2005) - **Feasibility of Detecting Heat Emission from Concealed Radio-isotopic Sources using Thermal Screening**.

3. USA-Technical Support Work Group (TSWG) research grant (2008-9) - **Green Field, Calibration of a cloud rise model for a radiological dispersion device scenario**, task plan CB-2789.

4. TSWG research grant (2010-11) - **Dispersion test in the IDF test facility**, task plan CB-3141.

5. TSWG research grant (2010-14) - **"Green Field-2" – RDD dispersion tests using a short live radioisotope** CB-3140.

6. TSWG research grant (2014-15) - **Test of materials for cleaning of radioactive contamination caused by an RDD attack**, task plan CB-3803-5.

7. IAEA National Technical Support project (2016-18) - **Updating the criteria and guidelines for Nuclear Power Plant (NPP) siting in Israel**, ISR 9010.

8. IAEA National Technical Support project (2018-21) - **Establish the necessary capable human resources and knowledge base needed for the decommissioning of nuclear facilities in Israel,** ISR9013.

Refereed Articles

1. J. Gal, I. Yaar, E. Arbaboff, H. Etedgi, F.J. Litterst, K. Aggarwal, J.A. Pereda and G.M. Kalvius, **$HoFe_4Al_8$: An unusual spin glass,** Phys. Rev. B 40 (1989) 745.

2. G.M. Kalvius, S. Zwirner, U. Potzel, J. Moser, W. Potzel, F.J. Litterst, J. Gal, S. Fredo, I. Yaar and J.C. Spirlet, **Localized Properties of the Itinerant 5f-electron Antiferromagnet $NpSn_3$** , Phys. Rev. Lett. 65 (1990) 2290.

3. J. Gal, I. Yaar, S. Fredo, D. Regev, G. Shani, E. Arbaboff, W. Potzel, K. Aggarwal, J.A. Pereda, G.M. Kalvius, F.J. Litterst, W. Schäfer and G. Will, **Spin-glass behavior of AFe_4Al_8 (A = Th,U,Np) intermetallics,** Phys. Rev. B 42 (1990) 8507.

4. W. Schäfer, G. Will, W. Potzel, G.M. Kalvius, I. Yaar, E. Arbaboff and J. Gal, **Localized and itinerant electrons in concentrated spin glass systems: Mö ssbauer, magnetization and neutron diffraction studies,** Physica B 180 & 181 (1992) 73.

5. I. Yaar, J. Gal, W. Potzel, G.M. Kalvius, G. Will and W. Schäfer, **Magnetic properties of NpX_2 intermetallic compounds,** J. Mag. Mag. Mater. 104-107 (1992) 63.

6. I. Yaar, S. Fredo, J. Gal, W. Potzel, G.M. Kalvius and F.J. Litterst, **Magnetic properties of $NpGa_2$ and $NpSi_2$** , Phys. Rev. B 45 (1992) 9765.

7. J. Gal, I. Yaar, S. Fredo, I. Halevy, W. Potzel, S. Zwirner and G.M. Kalvius, **Magnetic and electronic properties of cubic NpX_3 intermetallics,** Phys. Rev. B 46 (1992) 5351.

8. I. Yaar, Z. Gavra, D. Cohen, Y. Levitin, J. Feuerlicht, M.H. Mints and Z. Berant, **TDPAC STUDY OF THE Hf-doped $LaNi_5$-hydrogen system,** J. Alloys Comp. **260** (1997) 1.

9. I. Yaar, Z. Gavra, D. Cohen, Y. Levitin, G. Kimmel, S. Kahane, A. Hemy and Z. Berant, **TDPAC study of the ZrCo-hydrogen system**, Hyp. Inter. 120/121 (1999) 563.

10. E. Caspi, I. Yaar, M. Melamud, H. Shaked, **Isotropic one dimentional RKKY view of the magnetic phase diagrams of $U(M,M')_2X_2$ compounds**, Phys. Rev. B 62 (2000) 9418.

11. I. Yaar, S. MayTal-Beck and Z. Berant, **ELECTRONIC PROPERTIES OF $MoSi_2$ TYPE Hf_2X INTERMETALLIC COMPOUNDS (X= Pd, Ag, Cd).** Hyp. Inter. 136/137 (2002) 777.

12. Faysal El Khettabi, Ilan Yaar and Esam M. A. Hussein, **3D Compton Imaging of the Head: Morphologic Imaging and Electron Density Calculations**, Phys. Med. Bio. 48 (2003) 3445.

13. I. Halevy, S. Salove, S. Zalkind and I.Yaar, **High pressure study of β-UH_3 crystallographic and electronic structure**, J. Alloys Comp. 370 (2004) 59.

14. I. Yaar and Esam M.A. Hussein, **Passive Detection of Concealed ^{90}Sr RTGs in Transport**, Packaging, Transport, Storage and Security of Radioactive Material 15 (2004) 149.

15. S. Dubinski, A. Talmor, O. Presler, A. Tshuva, I. Yaar, I. Orion and Z.B. Alfassi, **The determination of a neutron source position in an unknown homogeneous medium: The planar case**, NIM-A, 548 (2005) 555.

16. I. Yaar, D. Cohen, I. Halevy, S. Kahane, H. Ettedgui, R. Aslanov and Z. Berant, **TDPAC study of the hydrogen uptake process in HfNi**, Hyp. Inter. 159 (2004) 351.

17. I. Halevy, S. Salhov, A.F Yue, J. Hu and I. Yaar, **High pressure study of HfNi crystallographic and electronic structure**, Hyp. Inter. 159 (2004) 357.

18. I. Yaar, I. Halevy, S. Salhov, E.N. Caspi, M. Dubman, S. Kahane and Z. Berant, **TDPAC study of the intermetallic compound $HfCo_3B_2$**, Hyp. Inter. 158 (2004) 285.

19. I. Halevy, V.Y. Zenou, S. Salhov, E.N. Caspi, H. Ettedgui and I. Yaar, **High pressure study of the intermetallic compound UFe_2Al_{10}**, J. Alloys Comp., 419 (2006) 21.

New publication – Published after the last Degree

20. I. Halevy, A. Beck, I. Yaar, S. Kahane, O. Levy, E. Auster, H. Ettedgui, E. N. Caspi, O. Rivin, Z. Berant and J.Hu, **XRD, TDPAC and LAPW Study of $Hf^{10}B_2$ Under High Pressure**, Hyp. Inter., 177 (2007) 57.

21. I. Yaar, I. Halevy, S. Kahane, A. Beck and Z. Berant, **Electronic Properties of HfXY Intermetallic Compounds (X=Si, Ge ; Y=S, Se, Te),** Hyp. Inter., 176 (2007) 27.

22. I. Yaar, I. Halevy, S. Kahane, A. Beck and Z. Berant, **Electronic Properties of Hf_2X Intermetallic Compounds (X=Al, Si, Ni, Ga and Ge)**, Hyp. Inter., 176 (2007) 33.

23. C. Morhaim, I. Orion, and I. Yaar, **A Concept for a Compton Effect Based Dosimeter Calibration System**, IEEE Transactions on Nuclear Science, 55 (2008) 1093.

24. I. Yaar, I. Peysakhov and E.M.A. Hussein, **Passive detection and identification of a concealed ^{241}Am source in transport**, Packaging, Transport, Storage and Security of Radioactive Material, 19 (2008) 189.

25. J.R. Schwartz, S. Mark, I. Yaar and S. Mordechai, **SPECTRALYZER: A Comprehensive Program to Classify FTIR Microscopic Data Applied for Early Detection of Critical Ailments**, App. Quantitative Methods in Medicine, 5 (2010) 133.

26. I. Halevy, S. Salhov, M.L. Winterrose, A. Broide, A.F. Yue, A. Robin, O. Yeheskel1, J. Hu and I. Yaar, **High pressure study and electronic structure of the super-alloy $HfIr_3$**, International Conference on High Pressure Science and Technology, Joint AIRAPT-22 & HPCJ-50, 26–31 July 2009, Tokyo, Japan, J. Phys.: Conf. Ser. 215 (2010) 012012.

27. A. Sharon, I. Halevy, D. Sattinger and I. Yaar, **Cloud rise model for radiological Dispersal device events**, Atmospheric Environment, 54 (2012) 603.

28. C. Dubi, I. Yaar and S. Mark, **Two independent approaches used for estimating 2d contamination distribution on the ground level- based on air monitoring information**, Mathematics in Engineering Science and Aerospace (MESA), 3 (2012) 151.

29. I. Yaar and I. Peysakhov, **A Multiple-Detector Radioactive Material Detection Spectroscopic (RMDS) Portal**, Nuclear Instrumentation and Methods in Physics Research A, Vol. 712 (2013) 62.

30. A. Givon, E. Tiferet, G.R. Castro, J. Rubio-Zuazo, E. Golan, I. Yaar, I. Orion, **Hard x-ray photoelectron spectroscopy study of the electron spectral structure beyond the known signal electron peak**, Journal of Chemistry and Chemical Engineering, JCHE-E2013050801 (2013).

31. A. Beck, I. Israelashvili, U. Wengrowicz, E.N. Caspi, I. Yaar, A. Osovizki, A. Ocherashvili, H. Rennhofer, B. Pedersen, J.-M. Crochemore, E. Roesgen, **Time Dependent Measurements of Induced Fission for SNM Interrogation**, Journal of Instrumentation (JINST), JINST_028P_0313 (2013).

32. E. Gilad, O. Rivin, H. Ettedgui, I. Yaar, B. Geslot, A. Pepino, J. Di Salvo, A. Gruel and P. Blaise, **Estimation of the Delayed Neutron Fraction β_{eff} of the MAESTRO Core in MINERVE Zero Power Reactor**, J. Nuclear Science and Technology, http://dx.doi.org/10.1080/00223131.2015.1038331 (2015).

33. I. Israelashvili1, C. Dubi1, H. Ettedgui1, A. Ocherashvili, B. Pedersen, A. Beck, E. Roesgen, J.M. Crochmore, T. Ridnik, I. Yaar, **Fissile Mass Estimation by Pulsed Neutron Source Interrogation**, NIM-A, Vol. 785 (2015) 14.

34. Ilan Yaar, Ayelet Walter, Yovav Sanders, Yaron Felus, Ran Calvo, and Yariv Hamiel. "**Possible Sites for Future Nuclear Power Plants in Israel.**" Nuclear Engineering and Design 298 (2016): 90-98.

35. Ilan Yaar, Itzhak Halevy, Ronen Bar-Ziv, Noah Vainblat, Yacov Iflach, Maor Assulin, Tzipora Avraham, Mike Kaminski, Terry Stilman and Shannon Serre, **Evaluation of Hydrogel Technologies for the Decontamination of ^{137}Cs from Building Material Surfaces**, ASME, J. of Nuclear Rad Sci., Vol. 3 (2017) 030909, doi:10.1115/1.4036458.

Chapters in Collective Volumes and books

36. A. Wolf and I. Yaar, **COMBATING RADIOLOGICAL TERRORISM – A MULTI-FACETED CHALLENGE**, NATO Science for Peace and Security Series, Countering Nuclear and Radiological Terrorism, Samuel Apikyan and David Diamond ed., Springer Netherlands (2006) 135.

37. I. Yaar, **Combined Sensors for the Detection, Identification and Monitoring of Radiation Sources**, NATO Science for Peace and Security Series, Countering Nuclear and Radiological Terrorism, Samuel Apikyan and David Diamond ed., Springer Netherlands (2006) 209.

New publication – Published after the last Degree

38. I. Yaar and A. Sharon, **Calibration of a Cloud Rise Model for a RDD Scenario,** NATO Science for Peace and Security Series, Prevention, Detection and Response to Nuclear and Radiological Threats, Samuel Apikyan, David Diamond and Ralph Way ed., Springer Netherlands (2008) 193.

39. A. Sharon, Y. Kutsher, I. Yaar, S. Mark and J. R. Schwartz, **A 3D-Monte Carlo Based Dispersion Model for an RDD or a Nuclear Terror Scenario**, NATO, Science for Peace and Security Series, Prevention, Detection and Response to Nuclear and Radiological Threats, Samuel Apikyan, David Diamond and Ralph Way ed., Springer Netherlands (2008) 223.

40. I. Yaar, I. Halevy, Z. Berenstein and A. Sharon, Ch. 7, **Protecting Transportation Infrastructure against Radiological Threat**. In, S. Hakim, G. Albert and Y. Shiftan (Eds.), **Handbook on Securing Transportation Systems.** John Wiley & Sons, Hoboken, NJ 07030, 2016, p. 129, ISBN 978-1-118-97793-4.

Technical Reports

41. Yaar I. and E.M.A. Hussein, **PASSIVE DETECTION AND IDENTIFICATION OF A CONCEALED ^{241}Am SOURCE**, Report submitted to Canada Customs and Revenue Agency, Laboratory and Scientific Services, 79 Bentely Avenue, Ottawa, Ontario, K1A 0l5 (2003).

42. Ilan Yaar, Mordechai Haim and Esam M.A. Hussein, **Feasibility of Detecting Heat Emission from Concealed Radioisotopic Sources using Thermal Screening**, Report submitted to Canada Customs and Revenue Agency, Laboratory and Scientific Services, 79 Bentely Avenue, Ottawa, Ontario, K1A0l5 (2005).

New publications – Published after the last Degree

43. **"White City" Task Plan, US-IS Joint Research, Test and Evaluation Plan for Radiological Decontamination Technologies**, EPA EP-W-05-054, Technical Document: TTEMI-06-005-0013, 18th Dec. 2014.

44. א. יער, **הערכת הקיבולת המקסימלית (מספר יחידות והספקן) של תחנות כוח גרעיניות באתר שבטה-רוגם**, משרד האנרגיה, דו"ח MOP_12_2014 (9/2014).

45. א. וולטר, א. יער, **בחינה מחודשת של קריטריונים דמוגרפיים להקמת תחנת כוח גרעינית (תג"ר) בישראל**, משרד האנרגיה, דו"ח MOP_13_2014 (9/2014).

46. U.S. EPA. **Evaluation of Hydrogel Technologies for the Decontamination of ^{137}Cs from Building Material Surfaces**, U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-17/035, 2017.

Non-Refereed Meetings and Conferences

47. J. Gal, I. Yaar, E. Arbaboff, R. Zerbib, **Concentrated Spin Glass Behavior of $HoFe_4Al_8$**, NMM 88 Munich Germany (8/1988) A30.

48. J. Gal, I. Yaar, E. Arbaboff, D. Regev, G. Shani, F.J. Litterst, K. Aggarwal, J.A. Pereda, W. Potzel, G.M. Kalvius, W. Suski, G. Will and W. Schäfer, **Magnetic Frustration in Ufe_4Al_8 and $NpFe_4Al_8$**, 19èmes Journées des Actinides Madonna di Campiglio Trento Italy (3/1989) C23 189.

49. W. Schäfer, G. Will, W. Potzel, G.M. Kalvius, I. Yaar and J. Gal, **Localized and itinerant electron behaviour in concentrated spin glasses,** ICNS 91 Oxford UK (1991) P1-A-10.

50. I Yaar, J. Gal, W. Potzel, G.M. Kalvius, G. Will and W. Schäfer, **Magnetic Properties of NpGa2**, 21èmes Journées des Actinides Montechoro, Algarve-Portogal (4/1991) O1.12.

51. I. Yaar, J. Gal, W. Potzel, G.M. Kalvius, G. Will and W. Schäfer, **Magnetic properties of NpX_2 intermetallic compounds,** ICM 91 Edinburgh Scotland (1991).

52. Y. Shaham, I. Yaar, Y. Birenbaum, Z. Berant, O. Haran, O. Shahal, **Feynman-Alpha Measurements at Ben-Gurion University Subcritical Assembly,** The Nuclear Society of Israel Vol. 18 TRANSACTIONS November Tel-Aviv Hilton (1994) V-16.

53. Y. Birenbaum, Z. Berant, S. Kahana, R. Moreh, A. Wolf and I. Yaar, **Fast Dynamic Neutron Sources Based on the (γ,n) Reactions**, The Nuclear Society of Israel Vol. 18 TRANSACTIONS November Tel-Aviv Hilton (1994) V-26.

54. I. Halevy, I. Yaar, E. Arbaboff, S. Fredo, D. Regev, J. Gall, W. Schafer, G. Will, J. Jové, M. Pages', G.M. Kalvius and W. Potzel, **Magnetic Properties of some $AnFe_5Al_7$ (An=U, Np): Mössbauer and magnetization studies**, 24èmes Journes des Actinides Obergurgl Austria (4/1994).

55. Z. Berant, I. Yaar, Z. Gavra, D. Cohen, Y. Levitin and M.H. Mints, **TDPAC Mesurements on ^{181}Ta in $LaNi_5$(Hf)-Hydride System,** Hyp. Int. (C) Vol. **1**,

Proceeding of the 10th International Conference on Hyperfine Interactions, LEUVEN Belgium (1996) 420.

56. A. Osovizky, J. Paran, E. Vulasky, N. Tal, I. Yaar, S. Jacobi, D. Tirosh and E. Levental, **Mathematical Calculation and Software Simulation of Positron Emitters Activity Concentration in a Duct**, 20th Conference of the Nuclear Societies in Israel, Hyatt Regency Hotel, Dead Sea, Israel (12/1999) 264.

57. I. Yaar, Z. Gavra, D. Cohen, Y. Levitin, G. Kimmel, S. Kahane, A. Hemy and Z. Berant, **TDPAC study of the ZrCo-hydrogen system**, Proceeding of the 11th International Conference on Hyperfine Interactions, Derban, South Africa (1999).

58. I. Yaar, S. MayTal-Beck and Z. Berant, **ELECTRONIC PROPERTIES OF $MoSi_2$-TYPE Hf_2X INTERMETALLIC COMPOUNDS (X= Pd, Ag, Cd),** Proceeding of the 12th International Conference on Hyperfine Interactions, Park City, Utah, USA (8/2001) P-103.

59. H. Jaeger, M. Rambo and I. Yaar, **Structural Phase Transition in Natural Zircon Studied by Perturbed Angular Correlation Spectroscopy**, Annual APS March Meeting, March 18 - 22, 2002 Indiana Convention Center; Indianapolis, Indiana Meeting ID: MAR02, abstract #U8.004

60. I. Halevy, V.Y. Zenou, E. Sterer, G. Kimmel, M. Aizenshthein and I. Yaar, **AMBIENT AND HIGH-PRESSURE STRUCTURE OF UAL_4 PREPARED BY SOLID-STATE REACTION,** 32èmes JOURNÉES DES ACTINIDES, Ein-Gedi, Israel, 19-22 March 2002.

61. Halevy, I., S. Salhov, A. Broide, O. Yeheskel, I. Yaar, A.F Yue and J. Hu , **High pressure study and electronic structure of NiAl and Ni_3Al**, *High Pressure Science and technology*, Proceeding of 20th AIRAPT, Karlsruhe, Editors: E. Dinjus, N. Dahmen (2005) 96.

62. I. Halevy, V.Y. Zenou, S. Salhov, E.N. Caspi, H. Ettedgui and I. Yaar, **High pressure study of the intermetallic compound UFe_2Al_{10}**, presented at the the 13th International Conference on Hyperfine Interactions and 17th International symposium on Nuclear Quadrupole Intaractions (HFI/NQI 2004), Bonn, Germanu, 22-27 August 2004.

63. I. Yaar, D. Cohen, I. Halevy, S. Kahane, H. Ettedgui, R. Aslanov and Z. Berant, **TDPAC study of the hydrogen uptake process in HfNi**, Proceedings of the 13th International Conference on Hyperfine Interactions and 17th International symposium on Nuclear Quadrupole Intaractions (HFI/NQI 2004), Bonn, Germanu, 22-27 August 2004, p. 351.

64. I. Halevy, S. Salhov, A.F Yue, J. Hu and I. Yaar, **High pressure study of HfNi crystallographic and electronic structure**, Proceedings of the 13th International Conference on Hyperfine Interactions and 17th International symposium on Nuclear Quadrupole Intaractions (HFI/NQI 2004), Bonn, Germanu, 22-27 August 2004 p. 357.

65. I. Yaar, I. Halevy, S. Salhov, E.N. Caspi, M. Dubman, S. Kahane and Z. Berant, **TDPAC study of the intermetallic compound $HfCo_3B_2$**, Proceedings of the 13th International Conference on Hyperfine Interactions and 17th International symposium on Nuclear Quadrupole Intaractions (HFI/NQI 2004), Bonn, Germanu, 22-27 August (2004) 285.

66. Halevy, I., S. Salhov, A. Broide, A. Robin, O. Yeheskel, I. Yaar, A.F Yue and J. Hu, **High pressure study and electronic structure of the super-alloy $HfIr_3$**, High Pressure Science and technology , Proceeding of 20th AIRAPT, Karlsruhe, Editors: E. Dinjus, N. Dahmen (2005) 313.

67. I. Halevy, I., S. Salhov, A. Broide, O. Yeheskel, I. Yaar, A. F. Yue, and J. Hu, **High pressure study and electronic structure of NiAl and Ni_3Al**, in Proceedings of Joint 20th AIRAPT - 43rd EHPRG International Conference on High Pressure Science and Technology, E. Dinjus and N. Dahmen, eds., Karlsruhe (2005) 96.

68. Halevy I., Kimmel G., Yaar I., Potzel W. and Gal J. Magnetic properties, crystallographic structure and electronic properties of Np_2Co_{17} and Np_2Ni_{17} 7th International Conference Actinides, Manchester, UK, 2005.

69. I. Yaar, **The role of science and technology in the fight against radiological terror**, Confronting Terrorism Regional issues & Roles of networks, January 18-21, 2005, Los Alamos, USA.

70. T. Toledano, I. Yaar, M. Foster, S. Mark and I. Orion, **MCNP Monte Carlo Simulations for a Compton Scattering NDT Testing System**, the 23rd Congress

of the Nuclear Societies in Israel, 15-16 February 2006, Holiday-Inn Crown-Plaza, Dead Sea, Israel.

71. C. Morhaim, I. Orion and I. Yaar, **Multi-Energy Calibration System for Radiation Dosimeters Based on Compton Effect**, the 23rd Congress of the Nuclear Societies in Israel, 15-16 February 2006, Holiday-Inn Crown-Plaza, Dead Sea, Israel.

72. A. Wolf and I. Yaar, **Combating Radiological Terrorism – A Multi-Dimensional Challenge,** the 23rd Congress of the Nuclear Societies in Israel, 15-16 February 2006, Holiday-Inn Crown-Plaza, Dead Sea, Israel.

73. I. Yaar and N. Tal, **Steps in Combating Radiological Terrorism (RT),** IAEA Research Coordination Meeting, Vienna, 24-28 April 2006.

74. A. Wolf and I. Yaar, **Combating Radiological Terrorism – a Multi-Faceted Challenge**, S. Apikyan and D. Diamond (eds.), Countering Nuclear and Radiological Terrorism (2006) 135.

75. I. Yaar, **Combined Sensors for the Detection, Identification and Monitoring of Radiation Sources**, S. Apikyan and D. Diamond (eds.), Countering Nuclear and Radiological Terrorism (2006) 209.

New publications – Published after the last Degree

76. E. Auster, A. Beck, I. Halevy, O. Levy, H. Ettedgui, E.N. Caspi, O. Rivin, I. Yaar, M. Ganor, S. Kahane, and Z. Berant, **TDPAC study of radiation damage in $Hf^{10}B_2$**, XIV International Conference on Hyperfine Interactions, August 5-10, 2007, Iguassu Falls (Argentina-Brazil).

77. I. Halevy, A. Beck, I. Yaar, S. Kahane, O. Levy, E. Auster, H. Ettedgui, E. N. Caspi, O. Rivin, Z. Berant and J.Hu, **XRD, TDPAC and LAPW Study of $Hf^{10}B_2$ Under High Pressure**, XIV International Conference on Hyperfine Interactions, August 5-10, 2007, Iguassu Falls (Argentina-Brazil).

78. I. Yaar, I. Halevy, S. Kahane, A. Beck and Z. Berant**, Electronic Properties of HfXY Intermetallic Compounds (X=Si, Ge ; Y=S, Se, Te),** XIV International Conference on Hyperfine Interactions, August 5-10, 2007, Iguassu Falls (Argentina-Brazil).

79. I. Yaar, I. Halevy, S. Kahane, A. Beck and Z. Berant, **Electronic Properties of Hf_2X Intermetallic Compounds (X=Al, Si, Ni, Ga and Ge)**, XIV International Conference on Hyperfine Interactions, August 5-10, 2007, Iguassu Falls (Argentina-Brazil).

80. Avi Sharon, Yakov Kutsher, Shlomo Mark, J.R. Schwartz, Ilan Yaar, **A 3D-Monte Carlo Based Dispersion Model for an RDD Terror Scenario**, S. Apikyan and D. Diamond (eds.), Countering Nuclear and Radiological Terrorism (2007).

81. Ilan Yaar and Avi Sharon, **Calibration of a cloud rise model for a RDD scenario**, S. Apikyan and D. Diamond (eds.), Countering Nuclear and Radiological Terrorism (2007).

82. I. Yaar, I. Halevy, A. Manor and U. Admon, **Radiation Detection Unmanned Aerial Vehicle (RAD-UAV)**, Radiological Detection Workshop, 10-11 December 2007, the Royal Society London, England.

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