



Amirkabir University of Technology  
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**HOSSEIN AFARIDEH**

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15

Citations (Scopus):

1195

**Educational Records**

#	Degree/Major	University	City	Country	Graduation Date
1	B.Sc / Physics	Tehran	Tehran	Iran	1980
2	M.Sc/ Nuclear Physics	Birmingham	Birmingham	United Kingdom	1985
3	Ph.D /Nuclear Energy	Birmingham	Birmingham	United Kingdom	1987
4	Post Doc./ Nuclear Energy	Birmingham	Birmingham	United Kingdom	1988

**Languages**

#	Language	Translation Skill	Dialogue Skill
4	English	Excellent	Excellent

**Supervised PhD Theses**

#	Thesis title	By	Date
1	On-line PET imaging method for dose profile verification in ion beam therapy by using simulation in Geant4 code	Zaffar Riaz Mobaraki & Hossein Afarideh	February 2012

2	Conceptual Design of a Proton Therapy Accelerator and Measurement and Calculation of the Dosimetry and Secondary Reaction	Mitra Ghergherehchi & Hossein Afarideh	March 2009
3	Application Of High Intense Laser For Electron Generation With Narrow Band Energy Distribution	Parviz Zobdeh & Hossein Afarideh	October 2008

### Supervised MSc Theses

#	Thesis title	By	Date
1	Design and construction of coupling devices , RF power transfer and tuning of 10MeV cyclotron	Hossein Pashayi Majidabad & Hossein Afarideh	September 2021
2	basic design of the radio frequency power amplifier for a baby cyclotron accelerator	Fateme Babagoli Moziraji & Hossein Afarideh	August 2021
3	Design and simulation of RF transformer for a dynamitron accelerator	Majid Ebrahimi & Hossein Afarideh	April 2021
4	design and simulation of beta- radioluminescence nuclear battery with beta emitters sources	Hosein Moayedi & Hossein Afarideh	June 2020
5	Design And Construction Of RF Field Emmission Electron Gun Cathode	Mostafa Ghazanfari & Hossein Afarideh	January 2020
6	Design and Manufacturing of Power Supply for the Production of Solid Targets used in the Cyclotron Accelerators	Mohammad Asadi & Hossein Afarideh	July 2019
7	Simulation of Beta-Gamma coincidence detection response to measure radio-xenon	Hesam Hoseini & Hossein Afarideh	June 2019
8	design and construction of ion detector for AUT Miniature Plasma Focus device	Ali Bolbol Amiri & Hossein Afarideh	May 2019
9	Modelling and implementation of calibration software for electromagnetic well logging instrument	Rayhaneh Miadfar & Hossein Afarideh	February 2019
10	designe and simulation of logging while drilling pulser	Mohammad Amin Zare & Hossein Afarideh	February 2019
11	magnet shimming design for 10 MeV IRANCYC	Masoumeh Hosseini & Hossein Afarideh	February 2019
12	Design of a proton computed tomography system for application of proton therapy by using Geant4 code	Pariman Asghari Nezhad & Hossein Afarideh	February 2019
13	temperature calibration of spectral natural gamma	Seyed Mohsen Mousavi & Hossein Afarideh	February 2019
14	design and construction of x-ray detector for AUT Miniature Plasma Focus device	Saeed Dabaghian & Hossein Afarideh	February 2019
15	RF system design of 2MeV classic cyclotron	Akram Salehi & Hossein Afarideh	February 2019
16	Design; Implementation ,fabrication and Evaluation of dual-Energy Industrial radiography benefits in non-Destructive Testing using monte-Carlo method	Mostafa Kabir & Hossein Afarideh	February 2018
17	Development of a position sensing system for incident beam using ps.pmt for medical imaging purposes	Nafise Malek Abbasloo & Hossein Afarideh	February 2018

18	Mechanical Design And CFD Simulation of liquid target (FDG) for high current and low energy in order to production of F-18	Salar Ghanbari & Hossein Afarideh	February 2018
19	The gamma-Knife system review	Javad Alami Matin Pour & Hossein Afarideh	January 2018
20	Magnet Design of NMR Systems For Logging Application	Behnam Asadi & Hossein Afarideh	January 2018
21	Design Calibration Algorithm For Spectral Density Log Tools In Nuclear Well Logging And Simulation With Nuclear Codes-Design And Manufacture Of Shop Calibration Equipments	Shiva Shirani Tak Abi & Hossein Afarideh	January 2018
22	Design and fabrication of a system for measurement of the electron beam profile and emittance in linear accelerator for medical purposes	Ziba Nazifinia & Hossein Afarideh	July 2017
23	Study of Radionuclide Inventories and Radon Exhalation Rate in some Granite Stone in Iran	Mohammad Moradi & Hossein Afarideh	March 2017
24	Design and simulation of gamma pulser and analyze of neutron source effect on it	Mohammadjavad Eghbalighayazi & Hossein Afarideh	February 2017
25	Bio-Monitoring of Air Quality Using Leaves of Trees in Esfahan Urban Environments	Farshad Majidi & Hossein Afarideh	February 2017
26	Construction of polycrystalline Zinc tungstate pills and investigating characteristics detection of x and Gamma radiations by that using the provided powder	Sadegh Mojahedfard & Hossein Afarideh	February 2017
27	Calculation of the beam dynamic for the central region of 18 Mev cyclotron	Fazel Taft & Hossein Afarideh	February 2017
28	Design and manufacturing SNG instrumentation for analyze natural gamma spectrum in formation	Kamran Norouzi & Hossein Afarideh	February 2017
29	Design and Simulation of 2 MeV Cyclotron Cavity	Parvaneh Yeganeh Ranjbar Ba Sharaf & Hossein Afarideh	February 2017
30	Conceptual design and simulation of 2 MeV classical cyclotron magnet by CST code	Zahra Pakdel Nejad & Hossein Afarideh	February 2017
31	design and im plementation an algorithm to separate neutron and gamma with HTMCA	Parisa Mavandadi & Hossein Afarideh	February 2017
32	Design & simulation of Beam injection line system from 14MeV cyclotron to 100MeV Separate Sector Cyclotron by Trace-3d code	Mohammad Khodadadi Mehrbadi & Hossein Afarideh	February 2017
33	Single-Casp Ion Source as a Internal Injector	Sahab Mohammady & Hossein Afarideh	October 2016
34	Medical Cyclotron and Target Preparation and Irradiation for PET	Abdolrahim Kazemi & Hossein Afarideh	October 2016
35	Nuclear Magnetic Resonance Logging	Shirin Delfani & Hossein Afarideh	September 2016
36	making FDG and NaF radiopharmaceutical majol	Mina Akhavan & Hossein Afarideh	July 2016
37	The control system design of 10MeV cyclotron by PLC	Mojtaba Hassani & Hossein Afarideh	July 2016

38	Design,simulation and development of control system of 10MeV cyclotron accelerator and development magnet field measurement for it	Sayed Yahya Ghorashi Nezhad & Hossein Afarideh	July 2016
39	Design and Manufacturing of driver set of cavity for 10MeV AND 18MeV Cyclotron including transmission lion,Coupling capacitor,tuning capacitor,directional coupler,pick up signals from cavity and...	Mohsen Mousavinia & Hossein Afarideh	February 2016
40	Design and simulation of movable shield of cyclotron 10MeV	Saman Azizpourian & Hossein Afarideh	February 2016
41	Prompt gamma detection method for proton range verification in proton therapy	Shiva Ghafari Jafari & Hossein Afarideh	February 2016
42	Design,simulation and impelement of monitoring system of 10MeV cyclotron accelerator and development magnet field measurement for it	Ameneh Hosseindoust & Hossein Afarideh	February 2016
43	Design,simulation and development of carbon-11 target	Haney Mortezaee & Hossein Afarideh	February 2016
44	design of central region and beam Dy namic of 10 mev cyclotron	Mohamad Mahdi Afkhami Karaei & Hossein Afarideh	February 2016
45	Design and simulation a 18 MeV cyclotron accelerator magnet by CStand TOSCA codes	Nastaran Rahimpour Kalkhoran & Hossein Afarideh	October 2015
46	The Measurement of Radioactive Argon Gas (Ar-41) in the Tehran Research Reactor	Hassan Heidari & Hossein Afarideh	September 2015
47	fusion fission Hybrid reactor preliminary design,	Hamid Moogooei & Hossein Afarideh	September 2015
48	Design and simulation of magnet of 100MeV seperatig sector cyclotron accelerator with toasca code	Ali Biganeh & Hossein Afarideh	September 2015
49	Production, quality control and biodistribution assessment of 175Yb-BPAMD for bone pain palliation	Mahdokht Vaez Tehrani & Hossein Afarideh	September 2015
50	Tehran research reactor fuel plate swelling assessment with dimensional measurement	Javid Dabiri & Hossein Afarideh	September 2015
51	A comprehensive review & evaluation of environmental Monitoring of the TRR by modeling, measuring atmospheric Radioactive release in 2014	Hasan Abbasi & Hossein Afarideh	August 2015
52	Monte Carlo simulation to study the effects of inorganic NaI (Ti) scintillation detector nonlinear response of sodium	Maryam Moosavi & Hossein Afarideh	July 2015
53	Modeling of small-animal PET scanner with depth-of-interaction correction:A Monte carlo study using GATE	Zeinab Khazaei & Hossein Afarideh	July 2015
54	Measuring of Radon and Thoron concentration in indoor and outdoor areas in Tehran at different season of year	Homa Berjisi & Hossein Afarideh	May 2015
55	Measurement and beam characterization on the neutron radiography reactor	Roohollah Pirhayati & Hossein Afarideh	May 2015
56	production and quality control of 166ho-citrate colloid as a therapeutic radiopharmaceutical	Ali Baqeri & Hossein Afarideh	May 2015
57	Investigation of ? and ? and particulate in the air of the TRR due to surface evaporation of pool water and its effect on internal contamination radiation worker	& Hossein Afarideh	May 2015

58	In Core Neutron Monitoring System Simulation With MCNP in VVER-1000 V-446 And Evaluation of System in the Power and Shutdown Mode	Ehsan Emamjomeh & Hossein Afarideh	April 2015
59	design of PIG ion source for 10 MeV cyclotron	Farzad Zakerhosseini & Hossein Afarideh	February 2015
60	Study on novel production method of <sup>99m</sup> Tc by cyclotron machine	Gholamreza Aslani & Hossein Afarideh	October 2014
61	Dose calculation in proton therapy and carbon therapy with parallel simulation in GEANT4 Code	Majid Kazemi Kozani & Hossein Afarideh	October 2014
62	Design and construction of low-level radio frequency(LLRF) circuit of cyclotron 10Mev	Mohammad Saleh Sharifi Asadi Malafeh & Hossein Afarideh	October 2014
63	Study the effects of increasing the amount of nanoparticles on heat transfer and pressure drop in the nuclear reactors	Mohamad Reza Mohtadi Jafari & Hossein Afarideh	October 2014
64	Performance test program for personal dosimetry service providers in iran Based upon the RS,G-1.3 Guide	Niloofar Navab Moghadam & Hossein Afarideh	October 2014
65	Design and simulation of an HPGE detector for spectroscopy in low energy ranges	Mohammad Taghi Haj Heidari & Hossein Afarideh	October 2014
66	Study surface effect of nanoparticle in attenuation for low energy photon	Mohammad Esmailnezhad & Hossein Afarideh	October 2014
67	Study of Ancient Silver coins by PIXE (Proton Induced X-ray Emission	Parvin Oliyai & Hossein Afarideh	August 2014
68	Determination of soil to rice transfer factor of Ra-226 in high level natural radiation area-ramsar	Abbas Rahimi Khoshmakani & Hossein Afarideh	August 2014
69	Multiphase Flow Measurement Based on Nuclear Method	Ehsan Angabini & Hossein Afarideh	May 2014
70	Designing and Manufacturing of enrichment assay system	Yadollah Lotfi & Hossein Afarideh	May 2014
71	The preparation of polymeric hydrogel based on PVA by using gamma rays for wound dressing	Mohammad Javad Afshari & Hossein Afarideh	February 2014
72	design and fabrication the bank of detection of the activity counter for colibration of pulsed and continuous neutron source	Khadijeh Kanani & Hossein Afarideh	January 2014
73	to design moisture meter with the use of nuclear techniques	Morteza Hosseini Ortehcheshmeh & Hossein Afarideh	January 2014
74	Design of control systems of magnet and vacuum in cyclotron 10MEV by Using of PLC	Ali Abdorrahman & Hossein Afarideh	October 2013
75	Design and Simulation of control system for the FDG and NaF radiopharmaceuticals production module using AVR microcontroller	Sudabeh Jaloo & Hossein Afarideh	October 2013
76	Heat transfer studies in Cavity of 10 Mev cyclotron using ANSYS6	Saeed Saboonchi & Hossein Afarideh	October 2013

77	Design and Manufacturing of RF Coupling and Coupling Capacitor in Cyclotron Cavity	Mandana Salehi & Hossein Afarideh	September 2013
78	synthesis of radioactive nano gold 198	Farzaneh Mohammad Beigi & Hossein Afarideh	September 2013
79	Scintillation detector simulation for PGNAA applications using MCNPX	Arash Nekoonam & Hossein Afarideh	August 2013
80	Simulation of response function of scintillation detectors to gamma-rays utilizing Fluka code	Mahmoud Farmahini Farahani & Hossein Afarideh	August 2013
81	design and construction of a logarithmic power channel at trr	Mohamad Zanbagh & Hossein Afarideh	April 2013
82	Design and construction of a linear power channel at TRR	Mehdi Amirteimuri & Hossein Afarideh	February 2013
83	design and simulation of quadrupole	Hadi Jamalabadi & Hossein Afarideh	February 2013
84	comparative studies of irradiation and packing materials on nutrients and shelf life of dates palm	Mhsa Mapar & Hossein Afarideh	November 2012
85	behavior of space charge dominate beam envelope in high-current 10MeV compact cyclotron	Roxana Azizi & Hossein Afarideh	October 2012
86	design of magnet for 30 mev cyclotron by cst and toasca codes	Mahdi Khosravani & Hossein Afarideh	October 2012
87	Simulation and Investigation of effective parameters on Gamma response function of scintillators	Sedigheh Abedi & Hossein Afarideh	February 2012
88	Design and Make of High speed Digitizer instrumented with sliding scale algorithm for multi channel analyzer	Mosayeb Khanderoo & Hossein Afarideh	February 2012
89	Design and Construction of a prototype of spherical neutron dosimeter	Mojtaba Aminipoor & Hossein Afarideh	February 2012
90	Optimization of mechanical properties of polyethylene-hydroxyapatite nano composites using 10 Mev electron beam radiation	Zahra Soltani & Hossein Afarideh	November 2011
91	Investigation of physical properties of 10 Mev electron beam irradiated epoxy-glass flake nano composites	Maryam Razazan & Hossein Afarideh	November 2011
92	The production of Dispersium - 165 in order to labeling of macroaggregates for radiosynovectomy	Amir Mahmoodabadi & Hossein Afarideh	November 2011
93	Investigation of electrical properties of PE/CNT nano compositeas using 10 MeV electron beam radiation	Atiyeh Aghel Maleki & Hossein Afarideh	November 2011
94	Proposing a New Formula regarding the Organic Scintillator's Response to Heavy Charged particles with Low Energy	Ojtaba Mahmoodyfard & Hossein Afarideh	October 2011
95	Design & Construction of a prototype system for Radiometric measurement of density	Esfandiyar Beigzadeh & Hossein Afarideh	October 2011
96	Track counting and depth quantification of heavy ion radiations aiming to gain an accurate dosimetry and nano-structure production,An automated algorithm	Omid Khayat & Hossein Afarideh	October 2011
97	Design and construction preparation of a switching magnet	Mahdiye Samimi & Hossein Afarideh	October 2011

98	Design & Construction of Radiometric Level meter	Meysam Falahati & Hossein Afarideh	October 2011
99	Design and make of digital pre-amplifier for optimization of effects, Balistic deficit, pile-up on scintillation and HPGE	Neda Nabavi & Hossein Afarideh	December 2010
100	Fabrication and magnetic investigation of Magnesium ferrites nanoparticles	Leila Pursmail & Hossein Afarideh	December 2010
101	Growth of Zinc Oxide nanowires on ITO sublayers with Dipcoating (sol-gel)	Nafise Momeni Larimi & Hossein Afarideh	October 2010
102	Investigation, Simulation & determination of optimum configuration in carbon nanotube antenna array	Majid Davoodian Idalik & Hossein Afarideh	September 2010
103	Design and installation of an independent proper system to monitoring the power of Tehran Research Reactor by counting The N-16 gamma	Hamidreza Armozd & Hossein Afarideh	January 2010
104	Optimization of radiation protection layer by using genetic algorithm	Sahar Ashayer & Hossein Afarideh	January 2010
105	Design, construction and installation a system to monitoring the fission fragments leakage from fuel clad in Tehran Research Reactor	Taghi Abdollahi & Hossein Afarideh	January 2010
106	Kinetic Analyzing of BOUSHEHR Nuclear Reactor at Start-up	Behnam Pirayesh & Hossein Afarideh	November 2009
107	Deriving basic neutronic parameters in TRR behaving as exponential pile	Mohammad Khourdad & Hossein Afarideh	November 2009
108	TRR power upgrading using temperature relaxation on primary and secondary loop	Saeed Pahang & Hossein Afarideh	February 2009
109	Coupled Burnup Calculations Using Monte Carlo Method	Saeid Jafarikia & Hossein Afarideh	February 2009
110	Fusion Of MRI And DHC-SPECT Brain Images	Mohammad Hossein Choopan Dastjerdi & Hossein Afarideh	February 2009
111	Quality Control And Optimization Of Production Of <sup>153</sup> Sm-EDTMP Radiopharmaceutical	Mahmood Nobakht Kalkhoran & Hossein Afarideh	June 2008
112	Application of Magnetic Guidance Method in Directional Drilling	Asadollah Khedmatgozar Bafekry & Hossein Afarideh	May 2008
113	CONCEPTUAL DESIGN AND SIMULATION OF NUCLEAR BATTERY USED IN CARDIAC PACEMAKERS	Masoumwh Mohamadian & Hossein Afarideh	February 2008
114	Lattice Design of a Proton Synchrotron	Maryam Hossein Zadeh & Hossein Afarideh	February 2008
115	DOSIMETRY BASED ON THE OUTPUT SIGNAL OF GAS PROPORTIONAL COUNTER USING AVR MICROCONTROLLER	Esmael Barati Kooran Torkyeh & Hossein Afarideh	October 2006

## Journal Papers

Portal Records

- 1 Khadijeh Kanani, Hossein Afarideh, Aghil Mohammadi, Jong Seo Chai, Y. S. Kim, "Design, manufacturing and calibration of the new models of Silver GM activation counters", MEASUREMENT, March 2020 Vol. 153, Num. 1, Page 107300-107308, March 2020,
- 2 Omid Khayat, Hossein Afarideh, "Performance evaluation of multilayer perceptron, radial basis function, fuzzy inference system, and an adaptively tuned fuzzy wavelet neural network in parameter prediction of multiphase flow measurement instrumentation", EXPERT SYSTEMS, March 2019 Vol. 36, Num. 3, Page 1-24, March 2019,
- 3 Nadia Zandi, Hossein Afarideh, Mohammad Reza Aboudzadeh, Saeed Rajabifar, "Study on a new design of Tehran Research Reactor for radionuclide production based on fast neutrons using MCNPX code", APPLIED RADIATION AND ISOTOPES, February 2019 Vol. 132, Num. 0, Page 67-71, February 2019,
- 4 Omid Khayat, Hossein Afarideh, "Design and simulation of a multienergy gamma ray absorptiometry system for multiphase flow metering with accurate void fraction and water-liquid ratio approximation", NUKLEONIKA, December 2018 Vol. 64, Num. 1, Page 19-29, December 2018,
- 5 Mitra Ghergherehchi, Junho Ko, Narjes Arab Yar Mohammadi, Hossein Afarideh, Yoon Sang Kim, "Optimisation of a hybrid photoneutron source in a linear accelerator using GEANT4 and MCNPX Monte Carlo codes", PRAMANA-JOURNAL OF PHYSICS, September 2018 Vol. 91, Num. 0, Page 35-41, September 2018,
- 6 E. Bayat, Hossein Afarideh, F. Abbasidavani, N. Ghal-Eh, "Noise reduction of PGNA spectrum using empirical mode decomposition technique.", RADIATION PHYSICS AND CHEMISTRY, August 2018 Vol. 149, Num. 0, Page 49-53, August 2018,
- 7 Meysam Falahati, M.R. Rashidian Vaziri, Amirmohammad Beigzadeh, Hossein Afarideh, "Design, modelling and construction of a continuous nuclear gauge for measuring the fluid levels", JOURNAL OF INSTRUMENTATION, February 2018 Vol. 13, Num. 2, Page 0-7, February 2018,
- 8 M. Sharifzadeh, Hashemabadi, Hossein Afarideh, H. Khalafi, "An experimental evaluation of the effect of homogenization quality as a preconditioning on oil-water two-phase volume fraction measurement accuracy using gamma-ray attenuation technique.", JOURNAL OF INSTRUMENTATION, February 2018 Vol. 13, Num. 2018, Page 2-12, February 2018,
- 9 Masoumeh Mohammadian, Hossein Afarideh, Mitra Ghergherehchi, "Accurate Electromagnetic Simulation and Design of Cyclotron Cavity", IEEE TRANSACTIONS ON NUCLEAR SCIENCE, December 2017 Vol. 64, Num. 2, Page 809-815, December 2017,
- 10 Hassan Vosoughian, G. Sarri, Borghesi, Hajiesmaeilbaigi, Hossein Afarideh, "The effect of positively chirped laser pulse on energy enhancement of proton acceleration in combinational radiation pressure and bubble regime", PHYSICS OF PLASMAS, October 2017 Vol. 24, Num. 10, Page 103123-103129, October 2017,
- 11 Bakhtiyar Azadbakht, Hossein Afarideh, Mohammadghannadi-Maragheh, Ali Bahrami-Samani, Hassan Yousefnia, "Absorbed doses in humans from 188Re-Rituximab in the free form and bound to superparamagnetic iron oxide nanoparticles: Biodistribution study in mice", APPLIED RADIATION AND ISOTOPES, October 2017 Vol. 131, Num. 0, Page 90-102, October 2017,
- 12 Mohsen Sharifzadeh, Hosein Khalaf, Hossein Afarideh, Ehsanallah Noori, "Two-phase flow component fraction measurement using gamma-ray attenuation technique", NUCLEAR SCIENCE AND TECHNIQUES, May 2017 Vol. 28, Num. 6, Page 88-95, May 2017,
- 13 Bakhtiyar Azadbakht, Hossein Afarideh, Mohammad Ghannadi Maragheh, Ali Bahrami Samani, Mehdi Asgari, "Preparation and evaluation of APTES-PEG coated iron oxide nanoparticles conjugated to rhenium-188 labeled rituximab", NUCLEAR MEDICINE AND BIOLOGY, May 2017 Vol. 48, Num. 2017, Page 26-30, May 2017,
- 14 Pouneh Tayyebi, Fereydoun Abbasidavani, Mohsen Tabasi, Hossein Afarideh, "A novel technique for detection efficiency determination of HPGe", RADIATION PHYSICS AND CHEMISTRY, March 2017 Vol. 133, Num. 0, Page 86-90, March 2017,
- 15 Hassan Vosoughian, Zaffar Riazi Mobaraki, Hossein Afarideh, G. Sarri, "Pulse chirping effect on controlling the transverse cavity oscillations in nonlinear bubble regime", CHINESE PHYSICS B, February 2017 Vol. 26, Num. 2, Page 25201-25207, February 2017,
- 16 Mohammad Saleh Sharifi Asadi Malafeh, Mitra Ghergherehchi, Hossein Afarideh, J.S. Chai, Yoon Sang Kim, "Intelligent low-level RF system by non-destructive beam monitoring device for cyclotrons", CHINESE PHYSICS C, January 2017 Vol. 40, Num. 4, Page 470011-470019, January 2017,



- 17 Bakhtiyar Azadbakht, Hossein Afarideh, Mohammad Ghannadi-Maragheh, Mehdi Asgari, Ali Bahrami-Samani, "Development of an electrochemical  $^{188}\text{W}/^{188}\text{Re}$  generator as a technique for separation and purification of  $^{188}\text{Re}$  in radiopharmaceutical applications", *APPLIED RADIATION AND ISOTOPES*, January 2017 Vol. 118, Num. 1, Page 331-337, January 2017,
- 18 Tayyebi, P., Fereydoun Abbasi Davani, Mohsen Tabasi, Marzieh Ebrahimkhani, Hossein Afarideh, "Computational investigation of isotopic signature of radioxenon released from Tehran research reactor", *JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY*, January 2017 Vol. 311, Num. 1, Page 571-576, January 2017,
- 19 Masoumeh Mohammadian, Hossein Afarideh, Mitra Ghergherehchi, "Optimized feed-forward neural-network algorithm trained for cyclotron-cavity modeling", *CHINESE PHYSICS C*, January 2017 Vol. 41, Num. 1, Page 170031-170037, January 2017,
- 20 Aghil Mohammadi, Hossein Afarideh, Fereydoun Abbasi Davani, Azim Arbabi, "New aspect determination of photoneutron contamination in 18 MV medical linear accelerator", *RADIATION MEASUREMENTS*, December 2016 Vol. 95, Num. 0, Page 55-61, December 2016,
- 21 Mohsen Sharifzadeh, Hosein Khalafi, Hossein Afarideh, Reza Gholipour, "Determination of oil-water volume fraction by using a pencil-beam collimated gamma-ray emitting source in a homogenized flow regime condition.", *FLOW MEASUREMENT AND INSTRUMENTATION*, December 2016 Vol. 52, Num. 0, Page 17-24, December 2016,
- 22 Hassan Vosoughian, Zafar Riazi Mobaraki, Hossein Afarideh, G. Sarri, "The effect of a negatively chirped laser pulse on the evolution of bubble structure in nonlinear bubble regime", *PHYSICS OF PLASMAS*, November 2016 Vol. 23, Num. 123113, Page 1-6, November 2016,
- 23 Mahdokht Vaeztehrani, Zolghadri S, Yousefnia H, Hossein Afarideh, "Estimation of human absorbed dose for  $^{166}\text{Ho}$ -PAM: comparison with  $^{166}\text{Ho}$ -DOTMP and  $^{166}\text{Ho}$ -TTHMP", *BRITISH JOURNAL OF RADIOLOGY*, October 2016 Vol. 89, Num. 1066, Page 160153-160159, October 2016,
- 24 Vahid Doost Mohammadi, Hossein Afarideh, Gholam Reza Etaati, "Simulation of beta-gamma coincidence spectra of radioxenon detector using gate 7.0 and comparison with experimental results", *JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY*, September 2016 Vol. 309, Num. 3, Page 1105-1112, September 2016,
- 25 Mahdokht Vaeztehrani, Zolghadri S, Yousefnia H, Hossein Afarideh, "Human absorbed dose estimation for a new  $^{175}\text{Yb}$ -phosphonate based on rats data: Comparison with similar bone pain palliation agents.", *APPLIED RADIATION AND ISOTOPES*, August 2016 Vol. 115, Num. 1, Page 55-60, August 2016,
- 26 Aghil Mohammadi, Hossein Afarideh, Fereydoun Abbasi Davani, Mitra Ghergherehchi, Arbabi, "Monte Carlo study of neutron-ambient dose equivalent to patient in treatment room", *APPLIED RADIATION AND ISOTOPES*, July 2016 Vol. 118, Num. 0, Page 140-148, July 2016,
- 27 Mohammad Taghi Haj Heidari, Mohammad Javad Safari, Hossein Afarideh, H. Rouhi, "Experimental validation of response function of a NaI (TI) detector modeled with Monte Carlo codes", *JOURNAL OF INSTRUMENTATION*, June 2016 Vol. 11, Num. 6, Page 0-7, June 2016,
- 28 Yoon Sang Kim, Zeinab Khazaei, Junho Ko, Hossein Afarideh, Mitra Ghergherehchi, "Estimation of photoneutron yield in linear accelerator with different collimation systems by Geant4 and MCNPX simulation codes", *PHYSICS IN MEDICINE AND BIOLOGY*, April 2016 Vol. 61, Num. 7, Page 2762-27, April 2016,
- 29 Esmaeel Bayat, Hossein Afarideh, Fereydoon Abbasi Davani, Nima Ghal-Eh, "A quality survey on different shielding configurations of gamma ray detector used with a portable PGNA system", *RADIATION PHYSICS AND CHEMISTRY*, April 2016 Vol. 120, Num. 2016, Page 7-11, April 2016,
- 30 Mohammad Taghi Haj Heidari, Mohammad Javad Safari, Hossein Afarideh, H. Rouhi, "Method for developing HPGe detector model in Monte Carlo simulation codes", *RADIATION MEASUREMENTS*, April 2016 Vol. 88, Num. 1, Page 1-6, April 2016,
- 31 Mahdokht Vaez Tehrani, Hossein Afarideh, Samaneh Zolghadri, Hassan Yousefnia, "Preparation and biological evaluation of  $^{175}\text{Yb}$ -BPAMD as a potential agent for bone pain palliation therapy", *JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY*, March 2016 Vol. 309, Num. 3, Page 1183-1190, March 2016,
- 32 Vahid Doost-Mohammadi, Hossein Afarideh, Gholamreza Etaati, Mohammad Javad Safari, H. Rouhi, "INGAS: Iranian Noble Gas Analyzing System for radioxenon measurement", *RADIATION PHYSICS AND CHEMISTRY*, March 2016 Vol. 120, Num. 2016, Page 266-32, March 2016,

- 33 Mohammad Javad Safari, F. Abbasi Davani, F. Abbasi Davani, Hossein Afarideh, E. Bayat, S. Jamili, "Discrete Fourier Transform Method for Discrimination of Digital Scintillation Pulses in Mixed Neutron-Gamma Fields", IEEE TRANSACTIONS ON NUCLEAR SCIENCE, February 2016 Vol. 63, Num. 1, Page 325-332, February 2016,
- 34 Reza Bagheri, Hossein Afarideh, Ali Bahrami Samani, Simindokht Shirvani, Mohammad Ghannadi Maragheh, "Dosimetric study of Radioisotope production of radium-223 in Tehran Research Reactor for treatment of bone metastases", JOURNAL OF NUCLEAR SCIENCE AND TECHNOLOGY, January 2016 Vol. 79, Num. 179, Page 30-36, January 2016,
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## Conference Papers

### Portal Records











- 1 Banin Shakeri Jooybari, Mitra Ghergherehchi, Hossein Afarideh, Mohammad Lamehi, Reza Moghimi, "Copper Nano- and Micro Wires Electrodeposited in Etched Cellulose Nitrate and Makrofol KG Nuclear Track Detector ", 26th International Conference on Nuclear Tracks in Solids, September 2014
- 2 Omid Khayat, Meisam Mohammadnia, Hossein Afarideh, "Track overlapping probability and counting statistics for reliable track counting in high density track images ", 26th International Conference on Nuclear Tracks in Solids, September 2014
- 3 Banin Shakeri Jooybari, Hossein Afarideh, Mohammad Lamehi, Mitra Ghergherehchi, "Ablation and Cone Evolution on ArF- Laser Irradiated CR-39 ", 26th International Conference on Nuclear Tracks in Solids, September 2014
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- 9 Hossein Afarideh, "Design of neutron spherical dosimeter based on He-3 spherical detector ", 20th Iranian Nuclear Conference, February 2014
- 10 Hossein Afarideh, "Conversion of CT Imaging Numbers of Hounsfield into proton stopping power for proton therapy in the treatment plan ", 20th Iranian Nuclear Conference, February 2014
- 11 Hossein Afarideh, "Writing new Monte carlo code MCRes for calculation of the gamma rays transport in the material ", 20th Iranian Nuclear Conference, February 2014
- 12 Hossein Afarideh, "The effect of light length on NE213 liquid scintillation efficiency for  $^{241}\text{Am}$ -Be neutron source using the integrated code of MCNPX-PHOTRACK ", 20th Iranian Nuclear Conference, February 2014
- 13 Hossein Afarideh, "Experimental Study of Gamma Distribution in Thickness Measurements. ", 20th Iranian Nuclear Conference, February 2014
- 14 Mohammad Saleh Sharifi Asadi Malafeh, Hossein Afarideh, "New Approach in Design of Efficient Low Level RF Circuit for 10 MeV Cyclotron ", 1st National Conference on Particle Accelerators & Their Application, November 2013
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- 36 Masoud Mehrabian, Kavous Mirabbaszadeh, Hossein Afarideh, Rouhollah Azimi Rad, "Ethanol gas sensors based on ZnO nanorods ", The annual physics conference of Iran 2011-1390, September 2011
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- 54 Masoumeh Mohammadian, Seyed Amirhossein Feghhi, Hossein Afarideh, "Conceptual design of GaN betavoltaic battery using in cardiac pacemaker ", , June 2007
- 55 Masoud Safi, Farzad Mahboubi, [en-name N/A], Hossein Afarideh, "The effect of ion implantation on the tribological properties of Ti - 6Al - 4V Alloy ", 2th Iranian Seminar on Surface Engineering, November 1999

## Taught Courses

#	Course title	Description	Headlines	Date
1	Nuclear Analytical Techniques	Nuclear Analytical Techniques		Fall 2021
2	Radiation Detection & Measurements (I)	Radiation Detection & Measurements I		Fall 2021
3	Calculations of Particles Transport	Calculations of Particles Transport		Fall 2021
4	Advanced Radiation Detection & Measurement	Advanced Radiation Detection & Measurement		Spring 2021
5	Radiation Detection Lab.	set up 25 experiment with radiation detectors		Spring 2021
6	Accelerator 1	Accelerator		Spring 2021
7	Radiation Detection & Measurements (II)	Radiation Detection & Measurements		Spring 2021
8	Special Topics (Special Topics in Radiation Applications)	Radiation Applications		Fall 2020
9	Nuclear Analytical Techniques	Nuclear Analytical Techniques		Fall 2020
10	Radiation Detection & Measurements (I)	Radiation Detection & Measurements I		Fall 2020