Nasir Mirza

List of Publications by Year
in descending order

54 papers	531 citations	623574 14 h-index	713332 21 g-index
54 all docs	54 docs citations	54 times ranked	299 citing authors

#	Article	IF	Citations
1	Core loading pattern optimization of a typical two-loop 300MWe PWR using Simulated Annealing (SA), novel crossover Genetic Algorithms (GA) and hybrid GA(SA) schemes. Annals of Nuclear Energy, 2014, 65, 122-131.	0.9	61
2	Cartesian path generation of robot manipulators using continuous genetic algorithms. Robotics and Autonomous Systems, 2002, 41, 179-223.	3.0	38
3	Bio-inspired heuristics for layer thickness optimization in multilayer piezoelectric transducer for broadband structures. Soft Computing, 2019, 23, 3449-3463.	2.1	36
4	Sensitivity of reactivity insertion limits with respect to safety parameters in a typical MTR. Annals of Nuclear Energy, 1999, 26, 1517-1535.	0.9	31
5	Simulation of reactivity transients in current MTRs. Annals of Nuclear Energy, 1998, 25, 1465-1484.	0.9	30
6	Study of the void coefficients of reactivity in a typical pool type research reactor. Annals of Nuclear Energy, 1997, 24, 177-186.	0.9	19
7	Kinetic simulation of fission product activity in primary coolant of typical PWRs under power perturbations. Nuclear Engineering and Design, 2007, 237, 199-205.	0.8	19
8	Simulation of corrosion product activity in pressurized water reactors under flow rate transients. Annals of Nuclear Energy, 1998, 25, 331-345.	0.9	17
9	Modeling and simulation of corrosion product activity in pressurized water reactors under power perturbations. Annals of Nuclear Energy, 1999, 26, 561-578.	0.9	17
10	Source term evaluation for the upgraded LEU Pakistan Research Reactor-1 under severe accidents. Nuclear Engineering and Design, 2010, 240, 3740-3750.	0.8	15
11	Computer simulation of corrosion product activity in primary coolants of a typical PWR under flow rate transients and linearly accelerating corrosion. Annals of Nuclear Energy, 2003, 30, 831-851.	0.9	14
12	Kinetic study of corrosion product activity in primary coolant pipes of a typical PWR under flow rate transients and linearly increasing corrosion rates. Journal of Nuclear Materials, 2005, 346, 282-292.	1.3	14
13	Simulation of corrosion product activity for nonlinearly rising corrosion on inner surfaces of primary coolant pipes of a typical PWR under flow rate transients. Applied Radiation and Isotopes, 2005, 62, 681-692.	0.7	14
14	Biologically inspired computing framework for solving two-point boundary value problems using differential evolution. Neural Computing and Applications, 2017, 28, 2165-2179.	3.2	14
15	Differential evolution based computation intelligence solver for elliptic partial differential equations. Frontiers of Information Technology and Electronic Engineering, 2019, 20, 1445-1456.	1.5	14
16	Comparative study of actinide and fission product inventory of HEU and potential LEU fuels for MNSRs. Progress in Nuclear Energy, 2009, 51, 129-134.	1.3	13
17	A comparative neutronic study of the standard HEU core and various potential LEU alternatives for a typical MNSR system. Nuclear Engineering and Design, 2008, 238, 2302-2307.	0.8	11
18	GEANT4 simulation of photo-peak efficiency of small high purity germanium detectors for nuclear power plant applications. Annals of Nuclear Energy, 2011, 38, 112-117.	0.9	11

#	Article	IF	Citations
19	Kinetic study of fission product activity released inside containment under loss of coolant transients in a typical MTR system. Applied Radiation and Isotopes, 2012, 70, 2711-2719.	0.7	11
20	Effect of flow rate transients on fission product activity in primary coolant of PWRs. Progress in Nuclear Energy, 2007, 49, 120-129.	1.3	10
21	Post-shutdown decay power and radionuclide inventories in the discharged fuels of HEU and potential LEU miniature neutron source reactors. Annals of Nuclear Energy, 2010, 37, 701-706.	0.9	10
22	Sensitivity analysis of fission product activity in primary coolant of typical PWRs. Progress in Nuclear Energy, 2011, 53, 245-249.	1.3	10
23	Study of Coolant Activation and Dose Rates with Flow Rate and Power Perturbations in Pool-Type Research Reactors. Nuclear Technology, 1991, 96, 237-247.	0.7	9
24	Stochastic simulation of fission product activity in primary coolant due to fuel rod failures in typical PWRs under power transients. Journal of Nuclear Materials, 2008, 372, 132-140.	1.3	9
25	Time-dependent corrosion product activity in a typical PWR due to changes in coolant chemistry for long-term fuel cycles. Progress in Nuclear Energy, 2012, 58, 100-107.	1.3	9
26	Effect of flow rate and power perturbations on dose rates due to coolant activity in low-power research reactors. Annals of Nuclear Energy, 1993, 20, 381-390.	0.9	7
27	Analysis of core life-time and neutronic parameters for HEU and potential LEU/MEU fuels in a typical MNSR. Annals of Nuclear Energy, 2012, 47, 46-52.	0.9	7
28	Two-group, three-dimensional model based study of reactivity induced transients in upgraded LEU material test reactors. Annals of Nuclear Energy, 2008, 35, 647-655.	0.9	6
29	Static and dynamic sensitivity analysis of corrosion product activity in primary coolant circuits of pressurized water reactors. Progress in Nuclear Energy, 2010, 52, 648-654.	1.3	6
30	Design and study of the characteristics of a three electrode experimental ionization chamber for gamma ray dosimetry of spent fuel. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1992, 321, 403-409.	0.7	5
31	Simultaneous multiple reactivity insertions in a typical MTR-type research reactor having U3Si2–Al fuel. Annals of Nuclear Energy, 2015, 85, 869-878.	0.9	5
32	Effect of Kinetic Parameters on Simultaneous Ramp Reactivity Insertion Plus Beam Tube Flooding Accident in a Typical Low Enriched U 3 Si 2 -Al Fuel-Based Material Testing Reactor-Type Research Reactor. Nuclear Engineering and Technology, 2017, 49, 700-709.	1.1	5
33	Study of successive ramp reactivity insertions in typical pool-type research reactors. Progress in Nuclear Energy, 2013, 66, 115-123.	1.3	4
34	Effect of high density dispersion fuels on transient behavior of MTR type research reactor under multiple reactivity transients. Progress in Nuclear Energy, 2015, 85, 511-517.	1.3	4
35	A Method to Protect CR-39 Track Detector from Sunlight. Japanese Journal of Applied Physics, 1991, 30, 1521-1524.	0.8	3
36	Simulation of corrosion product activity in extended operating cycles of PWRs under flow rate transient and nonlinearly rising corrosion rates coupled with pH effects. Nuclear Engineering and Design, 2012, 249, 388-399.	0.8	3

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37	Experimental and theoretical study of BF 3 detector response for thermal neutrons in reflecting materials. Nuclear Engineering and Technology, 2018, 50, 439-445.	1.1	3
38	Comparative study of MIRD, experimental and GEANT4 simulations for uniformly distributed I-131 in cylindrical and spherical thyroid models. Radiation Measurements, 2012, 47, 406-409.	0.7	2
39	Absorbed dose estimations of 131 I for critical organs using the GEANT4 Monte Carlo simulation code. Chinese Physics C, 2012, 36, 1150-1156.	1.5	2
40	Determination of age specific 131I S-factor values for thyroid using anthropomorphic phantom in geant4 simulations. Applied Radiation and Isotopes, 2014, 90, 15-22.	0.7	2
41	Parametric Study of Time-Dependent Corrosion Product Activity due to ^{56}Mn, ^{58}Co, and ^{60}Co in the Primary Coolant Circuit of a Typical Pressurized Water Reactor. Journal of Chemistry, 2015, 2015, 1-10.	0.9	2
42	Parametric study of iodine-129 releases from nuclear fuel to fuel-clad gap & primary coolant in PWRs. Annals of Nuclear Energy, 2019, 128, 181-189.	0.9	2
43	Beta-efficiency of a typical gas-flow ionization chamber using GEANT4 Monte Carlo simulations. Nuclear Technology and Radiation Protection, 2011, 26, 193-200.	0.3	2
44	Determination of mean squared slowing-down distance for Amî—‚Be neutrons in water using BF3-detector. Radiation Physics and Chemistry, 1996, 48, 413-417.	1.4	1
45	Influence of thyroid volume reduction on absorbed dose in ^{131} I therapy studied by using Geant4 Monte Carlo simulation. Chinese Physics C, 2014, 38, 056201.	1.5	1
46	The study of response of wide band gap semiconductor detectors using the Geant4. Nuclear Technology and Radiation Protection, 2014, 29, 242-248.	0.3	1
47	Influence of various geometries on detection efficiency of polystyrene, polyvinyl-toluene, and sodium iodide detectors using Geant4. Nuclear Technology and Radiation Protection, 2015, 30, 188-197.	0.3	1
48	Geant4-based comprehensive study of the absorbed fraction for electrons and gamma-photons using various geometrical models and biological tissues. Nuclear Technology and Radiation Protection, 2013, 28, 341-351.	0.3	1
49	Experimental study of effect of void volume fraction on neutron diffusion parameters in water. Radiation Physics and Chemistry, 2002, 64, 349-357.	1.4	0
50	Numerical simulations of corrosion product activity in the purification system of a typical PWR under nonlinearly rising corrosion and flow rate perturbations. International Journal of Nuclear Energy Science and Technology, 2008, 4, 132.	0.2	0
51	Modeling and simulation of release of radioactivity from a typical MTR type research reactor under accidental conditions. , 2009, , .		0
52	Response to: Comment on the paper â€œPost-Shutdown decay power and radionuclide inventories in the discharged fuels of HEU and potential LEU miniature neutron source reactorsâ€•by Mirza, S.M., Khan, A., Mirza N.M. [Ann. Nucl. Energy 37 (2010) 701â€"706]. Annals of Nuclear Energy, 2011, 38, 2865-2866.	0.9	0
53	Study of corrosion product activity due to non-linearly rising corrosion rates coupled with pH effects for long-term operating cycles in pressurized water reactors. Nuclear Technology and Radiation Protection, 2012, 27, 178-188.	0.3	0
54	Simulation of the total efficiency of cylindrical scintillation gamma-ray detectors for disk sources. Nuclear Technology and Radiation Protection, 2010, 25, 85-92.	0.3	0