

# Claubia Pereira

## List of Publications by Year in descending order

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116  
papers

830  
citations

567281

15  
h-index

642732

23  
g-index

117  
all docs

117  
docs citations

117  
times ranked

531  
citing authors

#	ARTICLE	IF	CITATIONS
1	Validation of a NaI(Tl) detector's model developed with MCNP-X code. Progress in Nuclear Energy, 2012, 59, 19-25.	2.9	98
2	Nuclear fuel loading pattern optimisation using a neural network. Annals of Nuclear Energy, 2003, 30, 603-613.	1.8	37
3	<a alt="sr1.gif" href="http://www.w3.org/1998/Math/MathML">Cubbs free energy</a> $\langle \text{mml:math xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"} \text{ altimg}=\text{"sr1.gif"} \text{ overflow}=\text{"scroll"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo stretchy}=\text{"true"} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:mo} \rangle \hat{I} \langle \text{mml:mo} \rangle \langle \text{mml:mtext} \rangle G \langle \text{mml:mtext} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo} \rangle T_j E_{Tj} Q_{q1} 1 0 7$ (sodium-oxygen-hydrogen) thermochemical water splitting cycle. International Journal of Hydrogen Energy, 2019, 44, 14536-14549.	7.1	36
4	Differential evolution algorithms applied to nuclear reactor core design. Annals of Nuclear Energy, 2009, 36, 1093-1099.	1.8	34
5	Neutronic evaluation of the non-proliferating reprocessed nuclear fuels in pressurized water reactors. Annals of Nuclear Energy, 1997, 24, 829-834.	1.8	30
6	Assessment of a RELAP5 model for the IPR-R1 TRIGA research reactor. Annals of Nuclear Energy, 2010, 37, 1341-1350.	1.8	29
7	Modelling Natural Radioactivity in Sand Beaches of Guarapari, Espírito Santo State, Brazil. World Journal of Nuclear Science and Technology, 2013, 03, 65-71.	0.3	25
8	Neutronic calculation to the TRIGA Ipr-R1 reactor using the WIMSD4 and CITATION codes. Annals of Nuclear Energy, 2002, 29, 901-912.	1.8	24
9	Thermal hydraulic analysis of the IPR-R1 TRIGA research reactor using a RELAP5 model. Nuclear Engineering and Design, 2010, 240, 1487-1494.	1.7	23
10	Thermal analysis for study of the gamma radiation effects in poly(vinylidene fluoride). Radiation Physics and Chemistry, 2015, 116, 345-348.	2.8	23
11	Thermodynamic study of a novel trigeneration process of hydrogen, electricity and desalinated water: The case of Na-O-H thermochemical cycle, SCWR nuclear power plant and MED desalination installation. Energy Conversion and Management, 2020, 209, 112648.	9.2	23
12	Simulation of an hypothetical out-of-phase instability case in boiling water reactor by RELAP5/PARCS coupled codes. Annals of Nuclear Energy, 2008, 35, 947-957.	1.8	20
13	Dynamic reconstruction and Lyapunov exponents from time series data in boiling water reactors. Application to B.W.R. stability analysis. Annals of Nuclear Energy, 1992, 19, 223-235.	1.8	17
14	Flux and dose rate evaluation of iter system using MCNP5. Brazilian Journal of Physics, 2010, 40, 58-62.	1.4	17
15	Na O H thermochemical water splitting cycle: A new approach in hydrogen production based on sodium cooled fast reactor. International Journal of Hydrogen Energy, 2018, 43, 7738-7753.	7.1	16
16	Thorium and reprocessed fuel utilization in an accelerator-driven system. Annals of Nuclear Energy, 2015, 80, 14-20.	1.8	15
17	Determination of natural radioactivity in beach sand in the extreme south of Bahia, Brazil, using gamma spectrometry. Radiation Protection and Environment, 2011, 34, 178.	0.2	13
18	Study of an ADS Loaded with Thorium and Reprocessed Fuel. Science and Technology of Nuclear Installations, 2012, 2012, 1-12.	0.8	12

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19	Analysis of Loss of Flow Events on Brazilian Multipurpose Reactor Using the Relap5 Code. International Journal of Nuclear Energy, 2014, 2014, 1-12.	0.4	12
20	Axial Neutron Flux Evaluation in a Tokamak System: a Possible Transmutation Blanket Position for a Fusion-Fission Transmutation System. Brazilian Journal of Physics, 2012, 42, 237-247.	1.4	11
21	Exergy analysis for the Na-O-H (sodium-oxygen-hydrogen) thermochemical water splitting cycle. International Journal of Hydrogen Energy, 2020, 45, 11424-11437.	7.1	11
22	B. W. R. Stability from dynamic reconstruction and autoregressive model analysis: Application to Cofrentes Nuclear Power Plant. Progress in Nuclear Energy, 1992, 27, 51-68.	2.9	10
23	Non-proliferating reprocessed nuclear fuels in pressurised water reactors: Fuel cycle options. Annals of Nuclear Energy, 1998, 25, 937-962.	1.8	10
24	Neutron production evaluation from a ADS target utilizing the MCNPX 2.6.0 code. Brazilian Journal of Physics, 2010, 40, 414-418.	1.4	10
25	Fusion-Fission Hybrid Systems for Transmutation. Journal of Fusion Energy, 2016, 35, 505-512.	1.2	10
26	HTR steady state and transient thermal analyses. International Journal of Hydrogen Energy, 2016, 41, 7192-7196.	7.1	10
27	Analyses of pressure perturbation events in boiling water reactor. Annals of Nuclear Energy, 2008, 35, 1199-1215.	1.8	9
28	Sensitivity analysis to a RELAP5 nodalization developed for a typical TRIGA research reactor. Nuclear Engineering and Design, 2012, 242, 300-306.	1.7	9
29	Recent advances on the use of reprocessed fuels and combined thorium fuel cycles in HTR systems. Progress in Nuclear Energy, 2015, 83, 482-496.	2.9	9
30	Modelling effects on axial neutron flux in a Tokamak device. Progress in Nuclear Energy, 2015, 78, 388-395.	2.9	9
31	Criticality and depletion analysis of reprocessed fuel spiked with thorium in a PWR core. Nuclear Engineering and Design, 2020, 360, 110514.	1.7	9
32	REA 3D-dynamic analysis in Almaraz NPP with RELAP5/PARCS v2.7 and SIMTAB cross-sections tables. Progress in Nuclear Energy, 2011, 53, 1167-1180.	2.9	8
33	Fast Accelerator Driven Subcritical System for Energy Production Using Burned Fuel. Fusion Science and Technology, 2012, 61, 256-261.	1.1	8
34	Application of a new source model of a panoramic gamma irradiator on dose map formation in an irradiated product. Applied Radiation and Isotopes, 2019, 144, 87-92.	1.5	8
35	The comparison of different multilayer perceptron and General Regression Neural Networks for volume fraction prediction using MCNPX code. Applied Radiation and Isotopes, 2020, 162, 109170.	1.5	8
36	Spent fuel criticality and compositions evaluation for long-term disposal in a generic cask. Nuclear Engineering and Design, 2014, 275, 168-178.	1.7	7

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37	Spatial distribution of neutron flux in geological larger sample analysis at CDTN/CNEN, Brazil. Journal of Radioanalytical and Nuclear Chemistry, 2015, 306, 611-616.	1.5	7
38	Coupled unstructured fine-mesh neutronics and thermal-hydraulics methodology using open software: A proof-of-concept. Annals of Nuclear Energy, 2018, 115, 173-185.	1.8	7
39	Assessment of the French nuclear energy system – A case study. Energy Strategy Reviews, 2020, 30, 100513.	7.3	7
40	Consistent Generation and Functionalization of One-Dimensional Cross Sections for TRAC-BF1. Nuclear Technology, 1994, 107, 125-137.	1.2	7
41	Lambda modes of the neutron-diffusion equation: Application to B.W.R.'s out-of-phase instabilities. Annals of Nuclear Energy, 1993, 20, 477-501.	1.8	6
42	A neutronic evaluation of the Americium and Neptunium co-insertion in UO <sub>2</sub> fuel. Annals of Nuclear Energy, 2003, 30, 775-783.	1.8	6
43	A Neutronic Evaluation of Reprocess Fuel and Depletion Study of VHTR Using MCNPX and WIMSD5 Code. Fusion Science and Technology, 2012, 61, 338-342.	1.1	6
44	Application of the orthogonal collocation method to determination of temperature distribution in cylindrical conductors. Annals of Nuclear Energy, 2008, 35, 1681-1685.	1.8	5
45	Shifting study of a VHTR using reprocessed fuel with various TRISO packing fractions. Nuclear Engineering and Design, 2012, 248, 42-47.	1.7	5
46	GANEX and UREX+ reprocessed fuels in ADS. International Journal of Hydrogen Energy, 2016, 41, 7132-7138.	7.1	5
47	Sensitivity analysis of a PWR fuel element using zircaloy and silicon carbide claddings. Nuclear Engineering and Design, 2017, 320, 103-111.	1.7	5
48	New source models to represent the irradiation process in panoramic gamma irradiator. Applied Radiation and Isotopes, 2017, 128, 175-182.	1.5	5
49	Alternative proposal of a small fast sodium reactor concept. Nuclear Engineering and Design, 2018, 337, 128-140.	1.7	5
50	Experimental Investigation of the Onset of Subcooled Nucleate Boiling in an Open-Pool Nuclear Research Reactor. Journal of ASTM International, 2011, 8, 1-9.	0.2	5
51	Waste analysis generated by alternative reprocessing fuels from pressurised water reactions. Annals of Nuclear Energy, 2000, 27, 449-464.	1.8	4
52	Implementation of control rod movement and boron injection options by using control variables in RELAP5/PARCS V2.7 coupled code. Progress in Nuclear Energy, 2011, 53, 1084-1090.	2.9	4
53	A preliminary neutronic evaluation of the high temperature nuclear reactor (HTTR) using reprocessed fuel. Annals of Nuclear Energy, 2014, 65, 232-238.	1.8	4
54	Assessment of the Insertion of Reprocessed Fuels and Combined Thorium Fuel Cycles in a PWR System. Materials Research Society Symposia Proceedings, 2015, 1769, 1.	0.1	4

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55	Replacement Zircaloy for Silicon Carbide as Fuel Cladding Material in PWR – A Neutronic Evaluation. Materials Research Society Symposia Proceedings, 2015, 1769, 1.	0.1	4
56	Depletion evaluation of an ADS using reprocessed fuel. International Journal of Hydrogen Energy, 2015, 40, 15148-15152.	7.1	4
57	Evaluation of an alternative shielding materials for F-127 transport package. Radiation Physics and Chemistry, 2018, 144, 29-33.	2.8	4
58	Scenarios of nuclear energy for countries with different options of nuclear fuel cycle: Utilization and perspective. Progress in Nuclear Energy, 2021, 136, 103747.	2.9	4
59	A neutronic evaluation of the (Pu–U) and (Am–Pu–U) insertion in a typical fuel of Angra-I. Annals of Nuclear Energy, 2009, 36, 1-6.	1.8	3
60	MCNP5 modeling of the IPR-R1 TRIGA reactor for criticality calculation and reactivity determination. Nuclear Engineering and Design, 2011, 241, 4989-4993.	1.7	3
61	A preliminary neutronic evaluation of high temperature engineering test reactor using the SCALE6 code. Radiation Physics and Chemistry, 2014, 95, 417-419.	2.8	3
62	Simulation of a TRIGA Reactor Core Blockage Using RELAP5 Code. Science and Technology of Nuclear Installations, 2015, 2015, 1-10.	0.8	3
63	Evaluation of subcritical hybrid systems loaded with reprocessed fuel. Annals of Nuclear Energy, 2015, 85, 633-642.	1.8	3
64	Layer thickness evaluation for transuranic transmutation in a fusion–fission system. Nuclear Engineering and Design, 2015, 286, 94-103.	1.7	3
65	VHTR, ADS, and PWR Spent Nuclear Fuel Analysis. Procedia Chemistry, 2016, 21, 255-262.	0.7	3
66	Numerical simulation of the open-pool reactor coolant system using a multi-domain approach. Nuclear Engineering and Design, 2020, 368, 110739.	1.7	3
67	An evaluation of the Americium insertion in Uo2 fuel. Annals of Nuclear Energy, 2002, 29, 767-775.	1.8	2
68	Valuation of Power Oscillations in a BWR After Control Rod Banks Withdrawal Events. IEEE Transactions on Nuclear Science, 2010, 57, 2676-2682.	2.0	2
69	Neutronic Evaluation of a MHR System to Transmutation of Minor Actinides. IEEE Transactions on Nuclear Science, 2010, 57, 2708-2713.	2.0	2
70	Valuation of BWR stability operating in natural circulation conditions. Progress in Nuclear Energy, 2011, 53, 1095-1104.	2.9	2
71	A methodology to a DB-MHR fuel recharge evaluation – A basic comparison between WIMSD-5B and MCNPX codes. Nuclear Engineering and Design, 2012, 248, 117-125.	1.7	2
72	Evaluation of the thermal neutron flux in samples of Al–Au alloy irradiated in the carousel channels of the TRIGA MARK I IPR-R1 reactor using MCNP code. Nuclear Engineering and Design, 2014, 273, 576-583.	1.7	2

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73	Transuranics Transmutation Using Neutrons Spectrum from Spallation Reactions. Science and Technology of Nuclear Installations, 2015, 2015, 1-23.	0.8	2
74	Steady-state thermal simulations of the liquid-salt-cooled high-temperature reactor. International Journal of Energy Research, 2018, 42, 245-254.	4.5	2
75	Integrated analysis of the Brazilian nuclear energy system. International Journal of Energy Research, 2021, 45, 11526-11537.	4.5	2
76	Safety Studies and General Simulations of Research Reactors Using Nuclear Codes. , 0, , .		1
77	GB5 " A Linking Code between MCNP5 and ORIGEN2.1 for Fuel Burnup and Radiotoxicity Analysis " DEN/UFMG Version. Fusion Science and Technology, 2012, 61, 361-366.	1.1	1
78	A Neutronic Evaluation of the HTR-10 Using Scale, MCNPX and MCNP5 Nuclear Codes. , 2014, , .		1
79	Thermal hydraulic simulations of the Angra 2 PWR. EPJ Nuclear Sciences & Technologies, 2015, 1, 5.	0.7	1
80	First Wall Materials Effects on Nuclear Criticality Evaluation of Fusion-Fission Systems. Fusion Science and Technology, 2015, 68, 625-629.	1.1	1
81	Thermal Analysis of Spent Nuclear Fuels Repository. Procedia Chemistry, 2016, 21, 386-393.	0.7	1
82	NEUTRONIC PERFORMANCE OF (U, Pu)C FUEL IN A LATTICE OF GFR USING SCALE 6.0. Materials Research Society Symposia Proceedings, 2016, 1814, 1.	0.1	1
83	PWR Fuel Element Neutronic Analysis with Burnable Poison Rods Using Zircaloy and Hi-Nicalon Type S Claddings. Materials Research Society Symposia Proceedings, 2016, 1814, 1.	0.1	1
84	Cross section evaluation for a LWR pin lattices with thorium applications. Annals of Nuclear Energy, 2017, 107, 89-102.	1.8	1
85	Temperature sensitivity analysis for an ADS system using different nuclear data libraries. International Journal of Energy Research, 2018, 42, 255-260.	4.5	1
86	Time Series Analysis for BWR Stability Studies. Nuclear Technology, 2020, 206, 554-564.	1.2	1
87	Tritium Breeder Layer Evaluation of Fusion-Fission Hybrid System. Fusion Science and Technology, 2020, 76, 145-152.	1.1	1
88	Comparison of spallation and fusion neutron sources in fuel transmutation and regeneration. Annals of Nuclear Energy, 2021, 155, 108159.	1.8	1
89	Energy and Exergy Analyses of Angra 2 Nuclear Power Plant. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	1
90	Criticality safety analysis of spent fuel pool for a PWR using UO <sub>2</sub> , MOX, (Th-U)O <sub>2</sub> and (TRU-Th)O <sub>2</sub> fuels. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	1

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91	A neutronic evaluation of VHTR and LS-VHTR. , 2009, , .		0
92	Valuation of power oscillations in a BWR after control rod banks withdrawal events. , 2009, , .		0
93	PWR-UO <sub>2</sub> nuclear fuel criticality study: control rod effects on infinite neutron multiplication factor and spent fuel composition. Nuclear Engineering and Design, 2013, 263, 42-46.	1.7	0
94	Thermal Modeling of the HTR-10 Using the RELAP5-3D Code. , 2014, , .		0
95	A multi-platform linking code for fuel burnup and radiotoxicity analysis. Radiation Physics and Chemistry, 2014, 95, 432-435.	2.8	0
96	Research Reactor Analysis Using Thermal Hydraulic and Neutron Kinetic Coupling. , 2014, , .		0
97	Criticality safety analysis using continuous energy libraries of MCNP code. International Journal of Nuclear Energy Science and Technology, 2015, 9, 333.	0.0	0
98	Damage Calculation for First Wall Submitted to High Neutron Flux in a Tokamak. Materials Research Society Symposia Proceedings, 2015, 1769, 1.	0.1	0
99	Effects on Criticality and Burnup Calculations Changings ADS Cladding Material. Materials Research Society Symposia Proceedings, 2016, 1814, 1.	0.1	0
100	Micro Heterogeneous Approaches for the Insertion of Reprocessed and Combined Thorium Fuel Cycles in a PWR System. Materials Research Society Symposia Proceedings, 2016, 1814, 1.	0.1	0
101	EVALUATION OF THE NEUTRONIC FEEDBACK EFFECTS IN LOSS OF COOLANT ACCIDENT SIMULATION OF THE IPR-R1 TRIGA REACTOR. Computational Thermal Sciences, 2019, 11, 243-254.	0.9	0
102	Thermodynamic analysis of a Na-O-H thermochemical cycle coupled to a Gas Turbine Modular Helium Reactor (GT-MHR). IOP Conference Series: Earth and Environmental Science, 2019, 354, 012002.	0.3	0
103	Fuel breeding and waste burnup capabilities of an accelerator-driven system using thorium and reprocessed fuels. International Journal of Energy Research, 2021, 45, 11882-11891.	4.5	0
104	Study of the physical properties of aluminothermic slags for the recovery of uranium and thorium. Brazilian Journal of Radiation Sciences, 2021, 9, .	0.0	0
105	Propagation of Uncertainty in System Parameters of a LWR Model by Sampling MCNPX Calculations "Burnup Analysis. , 2014, , .		0
106	Neutron Irradiation of Thorium-Based Fuels: Comparison Between Accelerator-Driven Systems and Fusion "Fission Systems. , 2016, , 379-381.		0
107	Monte Carlo Simulations for a Preliminary Design of TRIGA IPR-R1 PCAA Facility. Journal of Chemistry and Chemical Engineering, 2016, 10, .	0.3	0
108	Thermal Hydraulic Analysis and Modeling of the HTTR Using the RELAP5-3D. Journal of Nuclear Energy Science and Power Generation Technology (discontinued), 2017, 06, .	0.1	0

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109	Radioactive Background of Granito Madeira, North Amazonas, Brazil. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	0
110	TRISO fuel thermal simulations in the LS-VHTR. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	0
111	Neutronic analysis of a fuel element with variations in fuel enrichment and burnable poison. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	0
112	A comparative study of boron transport models in NRC thermal-hydraulic code TRACE. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	0
113	Artificial neural networks for spatial distribution of fuel assemblies in reload of PWR reactors. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	0
114	Seleção de áreas para a construção de um repositório geológico em Minas Gerais. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	0
115	Proposta de utilização de redes neurais feedforward multicamadas para a otimização de padrões de recarga do combustível em um reator PWR. Brazilian Journal of Radiation Sciences, 2019, 7, .	0.0	0
116	Neutronic evaluation of CANDU-6 core using reprocessed fuels. Brazilian Journal of Radiation Sciences, 2020, 8, .	0.0	0