

# Yonghee Kim

## List of Publications by Year in descending order

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papers

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citations

623734

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794594

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92  
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92  
docs citations

92  
times ranked

299  
citing authors

#	ARTICLE	IF	CITATIONS
1	A concept design of supercritical CO <sub>2</sub> -cooled SMR operating at isolated microgrid region. International Journal of Energy Research, 2017, 41, 512-525.	4.5	30
2	An advanced core design for a soluble-boron-free small modular reactor ATOM with centrally-shielded burnable absorber. Nuclear Engineering and Technology, 2019, 51, 369-376.	2.3	28
3	Innovative concept for an ultra-small nuclear thermal rocket utilizing a new moderated reactor. Nuclear Engineering and Technology, 2015, 47, 678-699.	2.3	24
4	Underwater laser cutting of stainless steel up to 100Åmm thick for dismantling application in nuclear power plants. Annals of Nuclear Energy, 2020, 147, 107655.	1.8	23
5	Convergence Analysis of the Nonlinear Coarse-Mesh Finite Difference Method for One-Dimensional Fixed-Source Neutron Diffusion Problem. Nuclear Science and Engineering, 2004, 147, 127-147.	1.1	21
6	Optimization of One-Pass Transuranic Deep Burn in a Modular Helium Reactor. Nuclear Science and Engineering, 2008, 160, 59-74.	1.1	20
7	A Conceptual Study of a Supercritical CO <sub>2</sub> -Cooled Micro Modular Reactor. Energies, 2015, 8, 13938-13952.	3.1	20
8	Alternative reflectors for a compact sodium-cooled breed-and-burn fast reactor. Annals of Nuclear Energy, 2015, 76, 113-124.	1.8	20
9	A feasibility study on low-enriched uranium fuel for nuclear thermal rockets â€“ I: Reactivity potential. Progress in Nuclear Energy, 2015, 83, 406-418.	2.9	19
10	Neutronics optimization and characterization of a long-life SCO <sub>2</sub> -cooled micro modular reactor. International Journal of Energy Research, 2017, 41, 976-984.	4.5	19
11	Optimization of the laser-Compton scattering spectrum for the transmutation of high-toxicity and long-living nuclear waste. Annals of Nuclear Energy, 2017, 105, 150-160.	1.8	17
12	A Nodal and Finite Difference Hybrid Method for Pin-by-Pin Heterogeneous Three-Dimensional Light Water Reactor Diffusion Calculations. Nuclear Science and Engineering, 2004, 146, 319-339.	1.1	15
13	Feasibility of passive autonomous frequency control operation in a Soluble-Boron-Free small PWR. Annals of Nuclear Energy, 2018, 116, 319-333.	1.8	15
14	Neutronics evaluation of a super-deep-burn with TRU Fully Ceramic Microencapsulated (FCM) fuel in CANDU. Progress in Nuclear Energy, 2015, 83, 261-269.	2.9	14
15	A Reduced-Boron OPR1000 Core Based on the BigT Burnable Absorber. Nuclear Engineering and Technology, 2016, 48, 318-329.	2.3	14
16	Improvement of Nodal Accuracy by Using Albedo-Corrected Parameterized Equivalence Constants. Nuclear Science and Engineering, 2017, 188, 207-245.	1.1	13
17	Burnable absorber-integrated Guide Thimble (BigT) â€“ I: design concepts and neutronic characterization on the fuel assembly benchmarks. Journal of Nuclear Science and Technology, 2016, 53, 1048-1060.	1.3	12
18	Development of 3-D HCMFD algorithm for efficient pin-by-pin reactor analysis. Annals of Nuclear Energy, 2019, 127, 87-98.	1.8	12

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19	A feasibility study on low enriched uranium fuel for nuclear thermal rockets – II: Rocket and reactor performance. <i>Progress in Nuclear Energy</i> , 2016, 87, 156-167.	2.9	11
20	Long-Cycle and High-Burnup Fuel Assembly for the VHTR. <i>Journal of Nuclear Science and Technology</i> , 2007, 44, 294-302.	1.3	10
21	Improvement of power coefficient by using burnable poison in the CANDU reactor. <i>Nuclear Engineering and Design</i> , 2011, 241, 1565-1578.	1.7	10
22	A comparative physics study for an innovative sodium-cooled fast reactor (iSFR). <i>International Journal of Energy Research</i> , 2018, 42, 151-162.	4.5	10
23	Physics study for high-performance and very-low-boron APR1400 core with 24-month cycle length. <i>Nuclear Engineering and Technology</i> , 2020, 52, 869-877.	2.3	10
24	Feasibility assessment of the alumina-forming duplex stainless steels as accident tolerant fuel cladding materials for light water reactors. <i>International Journal of Energy Research</i> , 2020, 44, 8074-8088.	4.5	10
25	Impacts of an ATF cladding on neutronic performances of the soluble-boron-free ATOM core. <i>International Journal of Energy Research</i> , 2020, 44, 8193-8207.	4.5	10
26	Uranium Enrichment Reduction in the Prototype Gen-IV Sodium-Cooled Fast Reactor (PGSFR) with PBO Reflector. <i>Nuclear Engineering and Technology</i> , 2016, 48, 351-359.	2.3	9
27	An optimization study on the excess reactivity in a linear breed-and-burn fast reactor (B&BR). <i>Annals of Nuclear Energy</i> , 2016, 94, 62-71.	1.8	9
28	Impacts of Burnup-Dependent Swelling of Metallic Fuel on the Performance of a Compact Breed-and-Burn Fast Reactor. <i>Nuclear Engineering and Technology</i> , 2016, 48, 330-338.	2.3	9
29	Comparison of the laser-Compton scattering and the conventional Bremsstrahlung X-rays for photonuclear transmutation. <i>International Journal of Energy Research</i> , 2018, 42, 236-244.	4.5	9
30	Functionalization of the Discontinuity Factor in the Albedo-Corrected Parameterized Equivalence Constants (APEC) Method. <i>Nuclear Science and Engineering</i> , 2018, 192, 1-20.	1.1	9
31	Fabrication of oxide pellets containing lumped Gd <sub>2</sub> O <sub>3</sub> using Y <sub>2</sub> O <sub>3</sub> -stabilized ZrO <sub>2</sub> for burnable absorber fuel applications. <i>International Journal of Energy Research</i> , 2018, 42, 2141-2151.	4.5	8
32	Development and validation of a fast sub-channel code for LWR multi-physics analyses. <i>Nuclear Engineering and Technology</i> , 2019, 51, 1218-1230.	2.3	8
33	Physics conditions of passive autonomous frequency control operation in conventional large-size PWRs. <i>Progress in Nuclear Energy</i> , 2020, 118, 103072.	2.9	8
34	Burnable absorber-integrated guide thimble (BigT) – II: application to 3D PWR core design. <i>Journal of Nuclear Science and Technology</i> , 2016, 53, 1521-1527.	1.3	7
35	An innovative core design for a soluble-boron-free small pressurized water reactor. <i>International Journal of Energy Research</i> , 2018, 42, 73-81.	4.5	7
36	Convergence Studies on Nonlinear Coarse-Mesh Finite Difference Accelerations for Neutron Transport Analysis. <i>Nuclear Science and Engineering</i> , 2018, 191, 136-149.	1.1	7

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37	A leakage correction with SPH factors for two-group constants in GET-based pin-by-pin reactor analyses. <i>Annals of Nuclear Energy</i> , 2019, 129, 30-55.	1.8	7
38	Three-Dimensional Pin-Resolved Transient Diffusion Analysis of PWR Core by the Hybrid Coarse-Mesh Finite Difference Algorithm. <i>Nuclear Science and Engineering</i> , 2020, 194, 1-13.	1.1	7
39	High-power continuous-wave tunable 544- and 272-nm beams based on a diode-oscillator fiber-amplifier for calcium spectroscopy. <i>Applied Physics B: Lasers and Optics</i> , 2015, 120, 233-238.	2.2	6
40	Evaluation of CANDU6 PCR (power coefficient of reactivity) with a 3-D whole-core Monte Carlo Analysis. <i>Nuclear Engineering and Design</i> , 2015, 295, 127-137.	1.7	6
41	High-power single-frequency pulsed laser based on a Yb-doped large-pitch photonic crystal fiber. <i>Journal of the Korean Physical Society</i> , 2017, 70, 973-978.	0.7	6
42	Deterministic Truncation of the Monte Carlo Transport Solution for Reactor Eigenvalue and Pinwise Power Distribution. <i>Nuclear Science and Engineering</i> , 2020, 194, 14-31.	1.1	6
43	A Lattice-Based Monte Carlo Evaluation of Canada Deuterium Uranium-6 Safety Parameters. <i>Nuclear Engineering and Technology</i> , 2016, 48, 642-649.	2.3	5
44	Potential of FAST (floating absorber for safety at transient) as a solution for positive coolant temperature coefficient in sodium-cooled FAST reactors. <i>Annals of Nuclear Energy</i> , 2020, 137, 107048.	1.8	5
45	Applicability of Swaging as an Alternative for the Fabrication of Accident-Tolerant Fuel Cladding. <i>Energies</i> , 2020, 13, 3182.	3.1	5
46	A Study on the Optimal Position for the Secondary Neutron Source in Pressurized Water Reactors. <i>Nuclear Engineering and Technology</i> , 2016, 48, 1291-1302.	2.3	4
47	Neutronics feasibility of simple and dry recycling technologies for a self-sustainable breed-and-burn fast reactor. <i>Annals of Nuclear Energy</i> , 2017, 110, 847-855.	1.8	4
48	Advancements in the Development of Low Enriched Uranium Nuclear Thermal Rockets. <i>Energy Procedia</i> , 2017, 131, 53-60.	1.8	4
49	One-node and two-node hybrid coarse-mesh finite difference algorithm for efficient pin-by-pin core calculation. <i>Nuclear Engineering and Technology</i> , 2018, 50, 327-339.	2.3	4
50	Photon and neutron hybrid transmutation for radioactive cesium and iodine. <i>Annals of Nuclear Energy</i> , 2019, 133, 527-537.	1.8	4
51	Improved nodal equivalence with leakage-corrected cross sections and discontinuity factors for PWR depletion analysis. <i>Nuclear Engineering and Technology</i> , 2019, 51, 1195-1208.	2.3	4
52	Improvement of CANDU safety parameters by using the CANFLEX fuel. <i>Annals of Nuclear Energy</i> , 2016, 94, 793-801.	1.8	3
53	An LEU-loaded long-life innovative sodium-cooled fast reactor (iSFR) with novel and passive safety devices. <i>Annals of Nuclear Energy</i> , 2016, 95, 86-101.	1.8	3
54	Use of Er Burnable Absorber for Improvement of CANDU6 Safety Parameters. <i>Nuclear Technology</i> , 2018, 201, 122-137.	1.2	3

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55	Pinwise Diffusion Solution of Partially MOX-Loaded PWRs with the GPS (GET PLUS SPH) Method. Nuclear Science and Engineering, 2019, 193, 1238-1254.	1.1	3
56	A feasibility study on photo-production of $^{99m}\text{Tc}$ with the nuclear resonance fluorescence. Nuclear Engineering and Technology, 2019, 51, 176-189.	2.3	3
57	Three-dimensional simulation of passive frequency regulations in the soluble-boron-free SMR ATOM. Nuclear Engineering and Design, 2020, 361, 110505.	1.7	3
58	Truly-optimized PWR lattice for innovative soluble-boron-free small modular reactor. Scientific Reports, 2021, 11, 12891.	3.3	3
59	FAST (floating absorber for safety at transient) for the improved safety of sodium-cooled burner fast reactors. Nuclear Engineering and Technology, 2021, 53, 1747-1755.	2.3	3
60	Improved FAST Device for Inherent Safety of Oxide-Fueled Sodium-Cooled Fast Reactors. Energies, 2021, 14, 4610.	3.1	3
61	An improved deterministic truncation of Monte Carlo solution for pin-resolved nuclear reactor analysis. Annals of Nuclear Energy, 2022, 166, 108723.	1.8	3
62	Study of structural stability at high temperature of pseudo-single tube with double layer as an alternative method for accident-tolerant fuel cladding. Journal of Nuclear Materials, 2022, 566, 153800.	2.7	3
63	A Study on Reconstruction of Intrapin Power Distribution in Pinwise Two-Group Diffusion Analysis. Nuclear Science and Engineering, 2018, 189, 224-242.	1.1	2
64	A Feasibility Study on the Transmutation of $^{100}\text{Mo}$ to $^{99m}\text{Tc}$ with Laser-Compton Scattering Photons. Nuclear Technology, 2018, 201, 41-51.	1.2	2
65	Three-D core multiphysics for simulating passively autonomous power maneuvering in soluble-boron-free SMR with helical steam generator. Nuclear Engineering and Technology, 2020, 52, 2699-2708.	2.3	2
66	A New Embedded Analysis with Pinwise Discontinuity Factors for Pin Power Reconstruction. Nuclear Science and Engineering, 2021, 195, 766-777.	1.1	2
67	80-W dual-wavelength green pulsed laser based on a Yb-doped rod-type fiber amplifier. Applied Physics B: Lasers and Optics, 2021, 127, 1.	2.2	2
68	Polynomial relaxation in the quasi-static approach and its implementation in nonlinear reactor transient analyses. Annals of Nuclear Energy, 2021, 158, 108271.	1.8	2
69	Unstructured Mesh-Based Neutronics and Thermomechanics Coupled Steady-State Analysis on Advanced Three-Dimensional Fuel Elements with Monte Carlo Code iMC. Nuclear Science and Engineering, 2021, 195, 464-477.	1.1	2
70	Long-Cycle and High-Burnup Fuel Assembly for the VHTR. Journal of Nuclear Science and Technology, 2007, 44, 294-302.	1.3	2
71	Improved macroscopic depletion in 2-D nodal analysis by $2 \times 2$ albedo-corrected parameterized equivalence constants method. Annals of Nuclear Energy, 2022, 175, 109209.	1.8	2
72	Characterization of a Source Importance Function in an Accelerator-Driven System. Nuclear Science and Engineering, 2003, 144, 227-241.	1.1	1

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73	Passive Reactivity Control of Nuclear Thermal Propulsion Reactors. Nuclear Technology, 2017, 197, 64-74.	1.2	1
74	Measurement and Analysis for Determination of PCR of the CANDU6 Core. Nuclear Technology, 2018, 201, 138-154.	1.2	1
75	Diffusion-Based Finite Element Method to Estimate the Reactivity Changes due to Core Deformation in an SFR. Nuclear Science and Engineering, 2018, 189, 41-55.	1.1	1
76	A New Two-Step Methodology for CANDU Analysis with the APEC-Assisted Nodal Equivalence Theory. Nuclear Technology, 2019, 205, 1185-1204.	1.2	1
77	Generation of Exact Discontinuity Factors for NEM Calculations with Two-by-Two Division per Fuel Assembly. Nuclear Science and Engineering, 2019, 193, 441-452.	1.1	1
78	Real Variance Estimation in Monte Carlo Criticality Calculation Accelerated by p-CMFD Feedback Using Spectral Analysis Method. Nuclear Science and Engineering, 2020, 194, 297-307.	1.1	1
79	Feasibility of a novel photoproduction of <sup>225</sup> Ac and <sup>227</sup> Th with natural thorium target. Scientific Reports, 2022, 12, 372.	3.3	1
80	Pin-by-Pin Coupled Transient Monte Carlo Analysis Using the iMC Code. Frontiers in Energy Research, 2022, 10, .	2.3	1
81	System Design and Analysis of a 900-MW(thermal) Lead-Cooled Fast Reactor. Nuclear Technology, 2010, 170, 148-158.	1.2	0
82	Combination of magneto-optical trapping and mass spectrometry for calcium-isotope analysis. Journal of the Korean Physical Society, 2013, 63, 927-932.	0.7	0
83	Combination method of atom trap and time-of-flight mass spectrometer for Ca isotope analysis. , 2013, , .		0
84	mW-class continuous-wave mid-infrared generation in the 4- $\mu$ m region by using difference frequency generation with a MgO-doped PPCLN crystal. Journal of the Korean Physical Society, 2014, 65, 2033-2039.	0.7	0
85	85-W 2015-nm single-frequency Thulium-doped all-fiber laser amplifier. , 2015, , .		0
86	Performance criterion of an indirect dry air-cooled condenser for small modular reactor based on pressure transition temperature. International Journal of Energy Research, 2019, 43, 8190.	4.5	0
87	A STUDY OF LEAKAGE-CORRECTED TWO-STEP METHOD BASED ON THE NODAL EQUIVALENCE THEORY FOR FAST REACTOR ANALYSIS. EPJ Web of Conferences, 2021, 247, 02026.	0.3	0
88	HIGH-PERFORMANCE MULTI-BATCH FUEL MANAGERMENTS FOR THE ADVANCED SOLUBLE-BORON-FREE ATOM CORE. EPJ Web of Conferences, 2021, 247, 19003.	0.3	0
89	INVESTIGATION ON DETERMINISTIC TRUNCATION TO CONTINUOUS ENERGY MONTE CARLO NEUTRON TRANSPORT CALCULATION. EPJ Web of Conferences, 2021, 247, 04023.	0.3	0