

# Hyosim Kim

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

425  
citations

840119

11  
h-index

752256

20  
g-index

40  
all docs

40  
docs citations

40  
times ranked

378  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Void swelling of conventional and composition engineered HT9 alloys after high-dose self-ion irradiation. <i>Journal of Nuclear Materials</i> , 2022, 560, 153492.  | 1.3 | 7         |
| 2  | A Novel Microshear Geometry for Exploring the Influence of Void Swelling on the Mechanical Properties Induced by MeV Heavy Ion Irradiation. <i>Materials</i> , 2022, 15, 4253.                            | 1.3 | 2         |
| 3  | Oxide dispersoid coherency of a ferritic-martensitic 12Cr oxide-dispersion-strengthened alloy under self-ion irradiation. <i>Journal of Nuclear Materials</i> , 2021, 544, 152671.                        | 1.3 | 2         |
| 4  | Helium retention, bubble superlattice formation and surface blistering in helium-irradiated tungsten. <i>Journal of Nuclear Materials</i> , 2021, 545, 152722.  | 1.3 | 6         |
| 5  | Irradiation-induced swelling of pure chromium with 5 MeV Fe ions in the temperature range 450–650°C. <i>Journal of Nuclear Materials</i> , 2021, 543, 152585.   | 1.3 | 12        |
| 6  | Microstructural and micro-mechanical analysis of 14YWT nanostructured Ferritic alloy after varying thermo-mechanical processing paths into tubing. <i>Materials Characterization</i> , 2021, 171, 110744. | 1.9 | 5         |
| 7  | Comparison of void swelling of ferritic-martensitic and ferritic HT9 alloys after high-dose self-ion irradiation. <i>Materials Characterization</i> , 2021, 173, 110908.                                  | 1.9 | 11        |
| 8  | Radiation-Enhanced Anion Transport in Hematite. <i>Chemistry of Materials</i> , 2021, 33, 2307-2318.  | 3.2 | 7         |
| 9  | ZrN Phase Formation, Hardening and Nitrogen Diffusion Kinetics in Plasma Nitrided Zircaloy-4. <i>Materials</i> , 2021, 14, 3572.  | 1.3 | 4         |
| 10 | Influence of Irradiation-Induced Defects on Anion Transport in Epitaxial Cr <sub>2</sub> O <sub>3</sub> . <i>Microscopy and Microanalysis</i> , 2021, 27, 2904-2905.                                      | 0.2 | 1         |
| 11 | Stable, Ductile and Strong Ultrafine HT-9 Steels via Large Strain Machining. <i>Nanomaterials</i> , 2021, 11, 2538.   | 1.9 | 3         |
| 12 | Limitations of Thermal Stability Analysis via In-Situ TEM/Heating Experiments. <i>Nanomaterials</i> , 2021, 11, 2541.   | 1.9 | 0         |
| 13 | Demonstration of a High-Throughput Tensile Testing Technique Using Femtosecond Laser-Fabricated Tensile Bars in AISI 316 and Additively Manufactured Grade 91 Steel. <i>Jom</i> , 2021, 73, 4240-4247.    | 0.9 | 2         |
| 14 | Continuous Monitoring of Pure Fe Corrosion in Lead-Bismuth Eutectic Under Irradiation with Proton-Induced X-ray Emission Spectroscopy. <i>Jom</i> , 2021, 73, 4041-4050.                                  | 0.9 | 2         |
| 15 | Radiation Enhanced Anion Diffusion in Chromia. <i>Journal of Physical Chemistry C</i> , 2021, 125, 27820-27827.   | 1.5 | 5         |
| 16 | Radiation response of a Fe–20Cr–25Ni austenitic stainless steel under Fe <sup>2+</sup> irradiation at 500°C. <i>Materials</i> , 2020, 9, 100542.  | 1.3 | 8         |
| 17 | Ni coating on 316L stainless steel using cage plasma treatment: Feasibility and swelling studies. <i>Journal of Nuclear Materials</i> , 2020, 540, 152385.  | 1.3 | 18        |
| 18 | Sizing up mechanical testing: Comparison of microscale and mesoscale mechanical testing techniques on a FeCrAl welded tube. <i>Journal of Materials Research</i> , 2020, 35, 2817-2830.                   | 1.2 | 8         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | A pathway to synthesizing single-crystal Fe and FeCr films. Surface and Coatings Technology, 2020, 403, 126346.  | 2.2 | 6         |
| 20 | Radiation response of FeCrAl-coated Zircaloy-4. Journal of Nuclear Materials, 2020, 536, 152175.   | 1.3 | 6         |
| 21 | Swelling resistance of advanced austenitic alloy A709 and its comparison with 316 stainless steel at high damage levels. Journal of Nuclear Materials, 2019, 527, 151818.                                | 1.3 | 23        |
| 22 | Effect of Helium on Dispersoid Evolution under Self-Ion Irradiation in A Dual-Phase 12Cr Oxide-Dispersion-Strengthened Alloy. Materials, 2019, 12, 3343.   | 1.3 | 4         |
| 23 | Nitrogen ion implantation into pure iron for formation of surface nitride layer. Nuclear Instruments & Methods in Physics Research B, 2019, 451, 10-13.  | 0.6 | 7         |
| 24 | The Effect of Internal Free Surfaces on Void Swelling of Irradiated Pure Iron Containing Subsurface Trenches. Crystals, 2019, 9, 252.  | 1.0 | 4         |
| 25 | Ion cutting of amorphous metals by using helium ion implantation. Nuclear Instruments & Methods in Physics Research B, 2019, 451, 1-5.   | 0.6 | 2         |
| 26 | Radiation response of Ti2AlC MAX phase coated Zircaloy-4 for accident tolerant fuel cladding. Journal of Nuclear Materials, 2019, 523, 26-32.  | 1.3 | 33        |
| 27 | Interface reactions and mechanical properties of FeCrAl-coated Zircaloy-4. Journal of Nuclear Materials, 2019, 519, 57-63.   | 1.3 | 26        |
| 28 | Impact of composition modification induced by ion beam Coulomb-drag effects on the nanoindentation hardness of HT9. Nuclear Instruments & Methods in Physics Research B, 2019, 444, 68-73.               | 0.6 | 14        |
| 29 | Carbon Contamination, Its Consequences and Its Mitigation in Ion-Simulation of Neutron-Induced Swelling of Structural Metals. Minerals, Metals and Materials Series, 2019, , 681-693.                    | 0.3 | 2         |
| 30 | Carbon Contamination, Its Consequences and Its Mitigation in Ion-Simulation of Neutron-Induced Swelling of Structural Metals. Minerals, Metals and Materials Series, 2018, , 681-693.                    | 0.3 | 2         |
| 31 | Dispersoid stability in ion irradiated oxide-dispersion-strengthened alloy. Journal of Nuclear Materials, 2018, 509, 504-512.  | 1.3 | 10        |
| 32 | Radiation instability of equal channel angular extruded T91 at ultra-high damage levels. Acta Materialia, 2017, 132, 395-404.  | 3.8 | 31        |
| 33 | Standardization of accelerator irradiation procedures for simulation of neutron induced damage in reactor structural materials. Nuclear Instruments & Methods in Physics Research B, 2017, 409, 251-254. | 0.6 | 34        |
| 34 | Radiation response of oxide-dispersion-strengthened alloy MA956 after self-ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2017, 409, 259-263.                                     | 0.6 | 13        |
| 35 | Beam-contamination-induced compositional alteration and its neutron-atypical consequences in ion simulation of neutron-induced void swelling. Materials Research Letters, 2017, 5, 478-485.              | 4.1 | 45        |
| 36 | Radiation response of alloy T91 at damage levels up to 1000 peak dpa. Journal of Nuclear Materials, 2016, 482, 257-265.  | 1.3 | 59        |

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|----|---|-----|-----------|
| 37 | Evaluation of the Monte Carlo method (KTMAN-2) in fluoroscopic dosimetry and comparison with experiment. Journal of the Korean Physical Society, 2014, 64, 936-940. | 0.3 | 1         |