

# Ann Leenaers

## List of Publications by Year in descending order

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Version: 2024-02-01

48  
papers

1,261  
citations

361045

20  
h-index

377514

34  
g-index

48  
all docs

48  
docs citations

48  
times ranked

512  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Post-irradiation examination of uranium <sup>235</sup> 7wt% molybdenum atomized dispersion fuel. Journal of Nuclear Materials, 2004, 335, 39-47.  | 1.3 | 163       |
| 2  | Transmission electron microscopy investigation of irradiated U <sup>235</sup> 7wt%Mo dispersion fuel. Journal of Nuclear Materials, 2008, 375, 340-346.   | 1.3 | 155       |
| 3  | Irradiation behavior of ground U(Mo) fuel with and without Si added to the matrix. Journal of Nuclear Materials, 2011, 412, 41-52.  | 1.3 | 56        |
| 4  | From High to Low Enriched Uranium Fuel in Research Reactors. Advances in Science and Technology, 0, , .   | 0.2 | 55        |
| 5  | Microstructure of U <sub>3</sub> Si <sub>2</sub> fuel plates submitted to a high heat flux. Journal of Nuclear Materials, 2004, 327, 121-129.   | 1.3 | 45        |
| 6  | Swelling of U(Mo) <sup>235</sup> Al(Si) dispersion fuel under irradiation <sup>235</sup> Non-destructive analyses of the LEONIDAS E-FUTURE plates. Journal of Nuclear Materials, 2012, 430, 246-258.              | 1.3 | 44        |
| 7  | Surface engineering of low enriched uranium <sup>235</sup> molybdenum. Journal of Nuclear Materials, 2013, 440, 220-228.  | 1.3 | 44        |
| 8  | Microstructural evolution of U(Mo) <sup>235</sup> Al(Si) dispersion fuel under irradiation <sup>235</sup> Destructive analyses of the LEONIDAS E-FUTURE plates. Journal of Nuclear Materials, 2013, 441, 439-448. | 1.3 | 44        |
| 9  | High burn-up structure of U(Mo) dispersion fuel. Journal of Nuclear Materials, 2016, 476, 218-230.  | 1.3 | 44        |
| 10 | On the solubility of chromium sesquioxide in uranium dioxide fuel. Journal of Nuclear Materials, 2003, 317, 62-68.  | 1.3 | 43        |
| 11 | Swelling of U(Mo) dispersion fuel under irradiation <sup>235</sup> Non-destructive analyses of the SELENIUM plates. Journal of Nuclear Materials, 2013, 442, 60-68.   | 1.3 | 42        |
| 12 | Fuel swelling and interaction layer formation in the SELENIUM Si and ZrN coated U(Mo) dispersion fuel plates irradiated at high power in BR2. Journal of Nuclear Materials, 2015, 458, 380-393.                   | 1.3 | 41        |
| 13 | Characterization of Uranium Particles Produced by Hydrolysis of UF <sub>6</sub> Using SEM and SIMS. Microscopy and Microanalysis, 2007, 13, 156-164.  | 0.2 | 40        |
| 14 | Post-irradiation examination of AlFeNi clad U <sub>3</sub> Si <sub>2</sub> fuel plates irradiated under severe conditions. Journal of Nuclear Materials, 2008, 375, 243-251.                                      | 1.3 | 40        |
| 15 | The effect of silicon on the interaction between metallic uranium and aluminum: A 50 year long diffusion experiment. Journal of Nuclear Materials, 2008, 381, 242-248.  | 1.3 | 39        |
| 16 | Heavy ion irradiation of UMo/Al samples PVD coated with Si and ZrN layers. Journal of Nuclear Materials, 2013, 434, 296-302.  | 1.3 | 33        |
| 17 | Determination of fluorine in uranium oxyfluoride particles as an indicator of particle age. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 199-207.  | 1.5 | 32        |
| 18 | Microstructure of as atomized and annealed U-Mo <sub>7</sub> particles: A SEM/EBSD study of grain growth. Journal of Nuclear Materials, 2017, 495, 249-266.   | 1.3 | 27        |

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|----|---|-----|-----------|
| 19 | Microstructural characterization of a thin film ZrN diffusion barrier in an As-fabricated Uâ€“7Mo/Al matrix dispersion fuel plate. Journal of Nuclear Materials, 2015, 458, 406-418.      | 1.3 | 25        |
| 20 | Crystallographic study of Si and ZrN coated Uâ€“Mo atomised particles and of their interaction with al under thermal annealing. Journal of Nuclear Materials, 2013, 442, 124-132.         | 1.3 | 24        |
| 21 | Pore pressure estimation in irradiated UMo. Journal of Nuclear Materials, 2018, 510, 472-483.   | 1.3 | 22        |
| 22 | A modelling study of the inter-diffusion layer formation in U-Mo/Al dispersion fuel plates at high power. Journal of Nuclear Materials, 2018, 499, 191-203.                               | 1.3 | 21        |
| 23 | Microstructure of long-term annealed highly irradiated beryllium. Journal of Nuclear Materials, 2008, 372, 256-262.   | 1.3 | 17        |
| 24 | Transmission electron microscopy investigation of neutron irradiated Si and ZrN coated UMo particles prepared using FIB. Journal of Nuclear Materials, 2018, 498, 60-70.                  | 1.3 | 15        |
| 25 | Oxidation of spent UO <sub>2</sub> fuel stored in moist environment. Journal of Nuclear Materials, 2003, 317, 226-233.  | 1.3 | 13        |
| 26 | A novel approach to determine the local burnup in irradiated fuels using Atom Probe Tomography (APT). Journal of Nuclear Materials, 2020, 528, 151853.                                    | 1.3 | 13        |
| 27 | STEM-EDS/EELS and APT characterization of ZrN coatings on UMo fuel kernels. Journal of Nuclear Materials, 2018, 511, 174-182.   | 1.3 | 12        |
| 28 | Determination of activation energies of the U(Mo)/Si and U(Mo)/Al solid state reaction using in-situ X-ray diffraction and Kissinger analysis. Solid State Sciences, 2012, 14, 1133-1140. | 1.5 | 11        |
| 29 | AlSi matrices for U(Mo) dispersion fuel plates. Journal of Nuclear Materials, 2013, 439, 7-18.  | 1.3 | 11        |
| 30 | Irradiation behavior study of Uâ€“Mo/Al dispersion fuel with high energy Xe. Journal of Nuclear Materials, 2015, 464, 236-244.  | 1.3 | 11        |
| 31 | Effect of fission rate on the microstructure of coated UMo dispersion fuel. Journal of Nuclear Materials, 2017, 494, 10-19.   | 1.3 | 11        |
| 32 | TEM investigation of long-term annealed highly irradiated beryllium. Journal of Nuclear Materials, 2008, 374, 54-60.  | 1.3 | 8         |
| 33 | Microstructural analysis of MTR fuel plates damaged by a coolant flow blockage. Journal of Nuclear Materials, 2009, 394, 87-94.   | 1.3 | 8         |
| 34 | Characterization of fresh EMPIrE and SEMPER FIDELIS U(Mo)/Al fuel plates made with PVD-coated U(Mo) particles. EPJ Nuclear Sciences & Technologies, 2018, 4, 49.                          | 0.3 | 8         |
| 35 | Morphological characterization of the fresh ZrN coated UMo powders used in EMPIrE irradiation experiment: A practical approach. Journal of Nuclear Materials, 2020, 533, 152087.          | 1.3 | 7         |
| 36 | 3D reconstructions of irradiated U Mo fuel to understand breaching effects in ZrN diffusion barriers. Journal of Nuclear Materials, 2018, 510, 431-436.                                   | 1.3 | 6         |

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|----|--|-----|-----------|
| 37 | ZrN coating as diffusion barrier in U(Mo) dispersion fuel systems. Journal of Nuclear Materials, 2021, 552, 153000.  | 1.3 | 6         |
| 38 | Microstructural Changes and Chemical Analysis of Fission Products in Irradiated Uranium-7 wt.% Molybdenum Metallic Fuel Using Atom Probe Tomography. Applied Sciences (Switzerland), 2021, 11, 6905. | 1.3 | 5         |
| 39 | Non-destructive analysis of swelling in the EMPIrE fuel test. Journal of Nuclear Materials, 2022, 564, 153683.   | 1.3 | 5         |
| 40 | U(Mo) grain refinement induced by irradiation with high energy iodine. Journal of Nuclear Materials, 2021, 548, 152850.  | 1.3 | 4         |
| 41 | U-Si Based Fuel System. , 2020, , 485-498.   |     | 4         |
| 42 | U-Mo Based Fuel System. , 2020, , 499-530.   |     | 3         |
| 43 | Status of the Low Enriched Uranium Fuel Development for High Performance Research Reactors. Advances in Science and Technology, 2014, 94, 43-54.   | 0.2 | 1         |
| 44 | Temperature Effects on Interdiffusion of Al and U-Mo under Irradiation. Journal of Nuclear Materials, 2021, 544, 152684.   | 1.3 | 1         |
| 45 | Microstructure of Spent MOX Fuel Stored Under Dry Air for 25 Years. , 2001, , .  |     | 1         |
| 46 | Morphological and microstructural characterizations of the fresh fuel plates for the SEMPERÂFIDELIS in-pile test. Journal of Nuclear Materials, 2022, 563, 153656.                                   | 1.3 | 1         |
| 47 | Microstructure and calorimetric analysis of the U Mn binary system. Journal of Nuclear Materials, 2019, 514, 380-392.  | 1.3 | 0         |
| 48 | U-Al Based Fuel System. , 2020, , 464-484.   |     | 0         |