Davide Pizzocri

List of Publications by Year
in descending order

		567281	610901
35 papers	602 citations	15 h-index	24 g-index
35 all docs	35 docs citations	35 times ranked	369 citing authors

#	ARTICLE	IF	CITATIONS
1	A Continuum Dislocation Dynamics Crystal Plasticity Approach to Irradiated Body-Centered Cubic Î±-Iron. Journal of Engineering Materials and Technology, Transactions of the ASME, 2022, 144, .	1.4	3
2	On the use of spectral algorithms for the prediction of short-lived volatile fission product release: Methodology for bounding numerical error. Nuclear Engineering and Technology, 2022, 54, 1195-1205.	2.3	5
3	Extension and application of the TRANSURANUS code to the normal operating conditions of the MYRRHA reactor. Nuclear Engineering and Design, 2022, 386, 111581.	1.7	5
4	Physics-based modelling and validation of inter-granular helium behaviour in SCIANTIX. Nuclear Engineering and Technology, 2022, 54, 2367-2375.	2.3	7
5	Application of the SCIANTIX fission gas behaviour module to the integral pin performance in sodium fast reactor irradiation conditions. Nuclear Engineering and Technology, 2022, 54, 2395-2407.	2.3	6
6	Towards grain-scale modelling of the release of radioactive fission gas from oxide fuel. Part I: SCIANTIX. Nuclear Engineering and Technology, 2022, 54, 2771-2782.	2.3	2
7	Modeling high burnup structure in oxide fuels for application to fuel performance codes. Part II: Porosity evolution. Journal of Nuclear Materials, 2022, 563, 153627.	2.7	7
8	Towards a physics-based description of intra-granular helium behaviour in oxide fuel for application in fuel performance codes. Nuclear Engineering and Technology, 2021, 53, 562-571.	2.3	10
9	Modelling fission gas behaviour in fast reactor (U,Pu)O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math> fuel with BISON. Journal of Nuclear Materials, 2021, 547, 152728.	2.7	9
10	Three-dimensional reconstruction from experimental two-dimensional images: Application to irradiated metallic fuel. Journal of Nuclear Materials, 2021, 548, 152843.	2.7	5
11	A new burn-up module for application in fuel performance calculations targeting the helium production rate in (U,Pu)O2 for fast reactors. Nuclear Engineering and Technology, 2021, 53, 1893-1908.	2.3	8
12	3D reconstruction of two-phase random heterogeneous material from 2D sections: An approach via genetic algorithms. Nuclear Engineering and Technology, 2021, 53, 2968-2976.	2.3	4
13	Modelling of thermal conductivity and melting behaviour of minor actinide-MOX fuels and assessment against experimental and molecular dynamics data. Journal of Nuclear Materials, 2021, 557, 153312.	2.7	12
14	Assessment of three European fuel performance codes against the SUPERFACT-1 fast reactor irradiation experiment. Nuclear Engineering and Technology, 2021, 53, 3367-3378.	2.3	10
15	Improvement of the BISON <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.svg"><mml:mrow><mml:msub><mml:mtext>U</mml:mtext><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mt modeling capabilities based on multiscale developments to modeling fission gas behavior. Journal of Nuclear Materials, 2021, 555, 153097.	2.7	7
16	On the intra-granular behaviour of a cocktail of inert gases in oxide nuclear fuel: Methodological recommendation for accelerated experimental investigation. Nuclear Engineering and Technology, 2021, , .	2.3	0
17	Modelling and assessment of thermal conductivity and melting behaviour of MOX fuel for fast reactor applications. Journal of Nuclear Materials, 2020, 541, 152410.	2.7	16
18	Modeling high burnup structure in oxide fuels for application to fuel performance codes. part I: High burnup structure formation. Journal of Nuclear Materials, 2020, 539, 152296.	2.7	20

#	Article	IF	Citations
19	Modeling intra-granular fission gas bubble evolution and coarsening in uranium dioxide during in-pile transients. Journal of Nuclear Materials, 2020, 538, 152195.	2.7	17
20	SCIANTIX: A new open source multi-scale code for fission gas behaviour modelling designed for nuclear fuel performance codes. Journal of Nuclear Materials, 2020, 532, 152042.	2.7	40
21	Multiscale modeling of fission gas behavior in U3Si2 under LWR conditions. Journal of Nuclear Materials, 2019, 522, 97-110.	2.7	34
22	Isotropic softening model for fuel cracking in BISON. Nuclear Engineering and Design, 2019, 342, 257-263.	1.7	14
23	Helium diffusivity in oxide nuclear fuel: Critical data analysis and new correlations. Nuclear Engineering and Design, 2018, 330, 265-271.	1.7	13
24	A model describing intra-granular fission gas behaviour in oxide fuel for advanced engineering tools. Journal of Nuclear Materials, 2018, 502, 323-330.	2.7	31
25	Helium solubility in oxide nuclear fuel: Derivation of new correlations for Henryâ€™s constant. Nuclear Engineering and Design, 2018, 340, 240-244.	1.7	16
26	An effective numerical algorithm for intra-granular fission gas release during non-equilibrium trapping and resolution. Journal of Nuclear Materials, 2018, 509, 687-699.	2.7	22
27	A semi-empirical model for the formation and depletion of the high burnup structure in UO2. Journal of Nuclear Materials, 2017, 487, 23-29.	2.7	18
28	An investigation of FeCrAl cladding behavior under normal operating and loss of coolant conditions. Journal of Nuclear Materials, 2017, 491, 55-66.	2.7	88
29	Analysis of transient fission gas behaviour in oxide fuel using BISON and TRANSURANUS. Journal of Nuclear Materials, 2017, 486, 96-110.	2.7	41
30	Properties of the high burnup structure in nuclear light water reactor fuel. Radiochimica Acta, 2017, 105, 893-906.	1.2	29
31	PolyPole-1: An accurate numerical algorithm for intra-granular fission gas release. Journal of Nuclear Materials, 2016, 478, 333-342.	2.7	16
32	Microhardness and Young's modulus of high burn-up UO2 fuel. Journal of Nuclear Materials, 2016, 479, 447-454.	2.7	27
33	Critical assessment of the pore size distribution in the rim region of high burnup UO2 fuels. Journal of Nuclear Materials, 2016, 480, 138-149.	2.7	31
34	Spaceship Earth. Space-driven technologies and systems for sustainability on ground. Acta Astronautica, 2015, 115, 195-205.	3.2	4
35	Application of the TRANSURANUS code for the fuel pin design process of the ALFRED reactor. Nuclear Engineering and Design, 2014, 277, 173-187.	1.7	25