Paul M Mummery

List of Publications by Year
in descending order

41 papers	1,113 citations	471509 17 h-index	395702 33 g-index
41 all docs	41 docs citations	41 times ranked	1213 citing authors

#	Article	IF	Citations
1	Thermal diffusivity of polymers by the laser flash technique. Polymer Testing, 2005, 24, 628-634.	4.8	154
2	Practical Application of the Stochastic Finite Element Method. Archives of Computational Methods in Engineering, 2016, 23, 171-190.	10.2	99
3	The influence of microstructure on the fracture behaviour of particulate metal matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 135, 221-224.	5.6	92
4	An understanding of lattice strain, defects and disorder in nuclear graphite. Carbon, 2017, 124, 314-333.	10.3	85
5	Effect of heat treatment on microstructure and mechanical properties of PIP-SiC/SiC composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 808-811.	5.6	73
6	Micro X-ray computed tomography image-based two-scale homogenisation of ultra high performance fibre reinforced concrete. Construction and Building Materials, 2017, 130, 230-240.	7.2	70
7	X-ray tomography observation of crack propagation in nuclear graphite. Materials Science and Technology, 2006, 22, 1045-1051.	1.6	54
8	Observation of microstructure deformation and damage in nuclear graphite. Engineering Fracture Mechanics, 2008, 75, 3633-3645.	4.3	46
9	Crack healing behaviour of Cr 2 AlC MAX phase studied by X-ray tomography. Journal of the European Ceramic Society, 2017, 37, 441-450.	5.7	41
10	Analysis of crack propagation in nuclear graphite using three-point bending of sandwiched specimens. Journal of Nuclear Materials, 2008, 372, 141-151.	2.7	38
11	Effect of recycling on the thermal properties of polymers. Polymer Testing, 2007, 26, 216-221.	4.8	24
12	Thermal diffusivity of polymers by modified angstrÃ¶m method. Polymer Testing, 2010, 29, 107-112.	4.8	24
13	Processing, microstructure, and physical properties of interpenetrating Al₂O₃/Ni composites. Materials Science and Technology, 2000, 16, 747-752.	1.6	21
14	Spatial variability in the mechanical properties of Gilsocarbon. Carbon, 2016, 110, 497-517.	10.3	21
15	Comparative study of predictive FE methods for mechanical properties of nuclear composites. Journal of Nuclear Materials, 2009, 383, 247-253.	2.7	20
16	SiC/SiC composite fabricated with carbon nanotube interface layer and a novel precursor LPVCS. Fusion Engineering and Design, 2014, 89, 131-136.	1.9	20
17	The role of residual stress in the fracture properties of a natural ceramic. Journal of Materials Chemistry, 2005, 15, 947.	6.7	18
18	Characterisation of residual principal stresses and their implications on failure of railway rails. Engineering Failure Analysis, 2010, 17, 1273-1284.	4.0	18

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19	Fabrication and characterization of 2.5D and 3D SiCf/SiC composites. Fusion Engineering and Design, 2013, 88, 2453-2456.	1.9	18
20	Mechanical properties and in situ crack growth observation of SiC/SiC composites. Ceramics International, 2014, 40, 7481-7485.	4.8	17
21	Spatial variability in the coefficient of thermal expansion induces pre-service stresses in computer models of virgin Gilsocarbon bricks. Journal of Nuclear Materials, 2015, 465, 793-804.	2.7	17
22	Assessment of the fracture toughness of neutron-irradiated nuclear graphite by 3D analysis of the crack displacement field. Carbon, 2021, 171, 882-893.	10.3	17
23	Effect of rhenium irradiations on the mechanical properties of tungsten for nuclear fusion applications. Journal of Nuclear Materials, 2016, 477, 42-49.	2.7	15
24	Dynamic fracture analysis by explicit solid dynamics and implicit crack propagation. International Journal of Solids and Structures, 2017, 110-111, 113-126.	2.7	14
25	Characterisation of the spatial variability of material properties of Gilsocarbon and NBG-18 using random fields. Journal of Nuclear Materials, 2018, 511, 91-108.	2.7	14
26	FAFNIR: Strategy and risk reduction in accelerator driven neutron sources for fusion materials irradiation data. Fusion Engineering and Design, 2014, 89, 2108-2113.	1.9	11
27	MÃ©todo de fio quente na determinaÃ§Ã£o das propriedades tÃ©rmicas de polÃmeros. Polimeros, 2004, 14, 354-359.	0.7	10
28	The distribution and selective decontamination of carbon-14 from nuclear graphite. Journal of Nuclear Materials, 2021, 556, 153167.	2.7	8
29	The characterisation and modelling of manufacturing porosity of a 2-D carbon/carbon composite. Journal of Composite Materials, 2014, 48, 2815-2829.	2.4	6
30	Investigating the effects of stress on the pore structures of nuclear grade graphites. Journal of Nuclear Materials, 2016, 470, 216-228.	2.7	6
31	The effects of ion irradiation on the micromechanical fracture strength and hardness of a self-passivating tungsten alloy. Journal of Nuclear Materials, 2017, 486, 34-43.	2.7	6
32	Studying SiC/SiC Composites by X-Ray Tomography. Key Engineering Materials, 0, 602-603, 416-421.	0.4	5
33	Dynamic fracture effects on remote stress amplification in AGR graphite bricks. Nuclear Engineering and Design, 2017, 323, 280-289.	1.7	5
34	Using porous random fields to predict the elastic modulus of unoxidized and oxidized superfine graphite. Materials and Design, 2022, 220, 110840.	7.0	5
35	The Effects of Service Lifetime and Duty on the Residual Stress in Railway Rails. Materials Science Forum, 2002, 404-407, 761-766.	0.3	4
36	Mimicking irradiation-induced cracking of nuclear graphite using bromine intercalation. Scripta Materialia, 2021, 199, 113889.	5.2	4

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37	Large-Scale Modeling of Damage and Failure of Nuclear Graphite Moderated Reactor. Journal of Pressure Vessel Technology, Transactions of the ASME, 2022, 144, .	0.6	4
38	Fracture strength testing of a self-passivating tungsten alloy at the micrometre scale. Philosophical Magazine, 2016, 96, 3570-3585.	1.6	3
39	Propriedades tÃ©rmicas de polÃmeros por mÃ©todos transientes de troca de calor. Polimeros, 2003, 13, 265-269.	0.7	2
40	A meso-scale approach to modelling stable dynamic crack propagation in glass under rate-dependent loading. Procedia Structural Integrity, 2016, 2, 381-388.	0.8	2
41	Analysis of dynamic fracture and fragmentation of graphite bricks by combined XFEM and cohesive zone approach. International Journal of Pressure Vessels and Piping, 2019, 171, 117-124.	2.6	2