

Shigang Ai

List of Publications by Year in descending order

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Version: 2024-02-01

16
papers

310
citations

840776

11
h-index

940533

16
g-index

16
all docs

16
docs citations

16
times ranked

245
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-scale modeling of thermal expansion coefficients of C/C composites at high temperature. <i>Materials and Design</i> , 2015, 82, 181-188.	7.0	47
2	Bending behavior of lightweight C/SiC pyramidal lattice core sandwich panels. <i>International Journal of Mechanical Sciences</i> , 2020, 171, 105409.	6.7	36
3	Review on mechanics of ultra-high-temperature materials. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2021, 37, 1347-1370.	3.4	29
4	A novel modeling approach of aluminum foam based on MATLAB image processing. <i>Computational Materials Science</i> , 2014, 82, 451-456.	3.0	28
5	A diffusion, oxidation reaction and large viscoelastic deformation coupled model with applications to SiC fiber oxidation. <i>International Journal of Plasticity</i> , 2019, 118, 173-189.	8.8	27
6	Stress field and damage evolution in C/SiC woven composites: Image-based finite element analysis and in situ X-ray computed tomography tests. <i>Journal of the European Ceramic Society</i> , 2021, 41, 2323-2334.	5.7	25
7	A constitutive model for elastoplastic-damage coupling effect of unidirectional fiber-reinforced polymer matrix composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 130, 105736.	7.6	24
8	Mechanical behaviors of C/SiC pyramidal lattice core sandwich panel under in-plane compression. <i>Composite Structures</i> , 2019, 214, 103-113.	5.8	23
9	Assessment of thermal-mechanical performance with structural efficiency concept on design of lattice-core thermal protection system. <i>Applied Thermal Engineering</i> , 2018, 143, 200-208.	6.0	17
10	Elasto-plastic phase field modelling of oxidation of zirconium alloys. <i>International Journal of Solids and Structures</i> , 2018, 134, 30-42.	2.7	12
11	A damage-induced short-circuit diffusion model applied to the oxidation calculation of ceramic matrix composites (CMCs). <i>Composites Part A: Applied Science and Manufacturing</i> , 2019, 127, 105621.	7.6	12
12	A Study on the Compressive Performance of C/SiC Lattice Sandwich Panel at High Temperature. <i>International Journal of Applied Mechanics</i> , 2017, 09, 1750120.	2.2	8
13	Generating 3D digital material twins for woven ceramic matrix composites from μ CT images. <i>Journal of the American Ceramic Society</i> , 2022, 105, 481-497.	3.8	8
14	A phase-field study on the oxidation behavior of Ni considering heat conduction. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2016, 32, 881-890.	3.4	7
15	A physically based thermo-elastoplastic constitutive model for braided CMCs/SiC at ultra-high temperature. <i>Journal of the American Ceramic Society</i> , 2022, 105, 2196-2208.	3.8	4
16	Effects of Void Defects on Fracture Features and Tensile Strength of C/SiC Composites: an Image-based FEM Study. <i>Applied Composite Materials</i> , 2022, 29, 1021-1039.	2.5	3