Shouwen Shi

List of Publications by Year
in descending order

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		331538	414303
51	1,207	21	32
papers	citations	h-index	g-index

51	51	51	939
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structure/property relationship of Nafion XL composite membranes. Journal of Membrane Science, 2016, 516, 123-134.	4.1	122
2	STRUCTURE-TRANSPORT RELATIONSHIP OF PERFLUOROSULFONIC-ACID MEMBRANES IN DIFFERENT CATIONIC FORMS. Electrochimica Acta, 2016, 220, 517-528.	2.6	91
3	In-situ synthesis of MnO2@CNT microsphere composites with enhanced electrochemical performances for lithium-ion batteries. Journal of Power Sources, 2016, 310, 54-60.	4.0	52
4	Machine learningâ€based genetic feature identification and fatigue life prediction. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 2524-2537.	1.7	46
5	Effect of surface mechanical attrition treatment on corrosion fatigue behavior of AZ31B magnesium alloy. International Journal of Fatigue, 2019, 127, 461-469.	2.8	40
6	Cyclic deformation of 316L stainless steel and constitutive modeling under non-proportional variable loading path. International Journal of Plasticity, 2019, 120, 127-146.	4.1	39
7	Mechanical properties of Nafion 212 proton exchange membrane subjected toÂhygrothermal aging. Journal of Power Sources, 2013, 238, 318-323.	4.0	38
8	Microcrack initiation mechanisms of 316LN austenitic stainless steel under in-phase thermomechanical fatigue loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 752, 1-14.	2.6	38
9	Pits formation and stress corrosion cracking behavior of Q345R in hydrofluoric acid. Corrosion Science, 2020, 166, 108443.	3.0	38
10	Impact of hygrothermal aging on structure/function relationship of perfluorosulfonic-acid membrane. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 570-581.	2.4	35
11	Microstructure evolution and enhanced mechanical properties in SUS316LN steel processed by high pressure torsion at room temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 476-483.	2.6	35
12	Cyclic deformation and cracking behavior of 316LN stainless steel under thermomechanical and isothermal fatigue loadings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138866.	2.6	34
13	Cyclic deformation behavior and dynamic strain aging of 316LN stainless steel under low cycle fatigue loadings at 550ÂÂ°C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 818, 141411.	2.6	34
14	Effects of elemental composition and microstructure inhomogeneity on the corrosion behavior of nickel-based alloys in hydrofluoric acid solution. Corrosion Science, 2020, 176, 108917.	3.0	30
15	Fatigue crack propagation behavior of fuel cell membranes after chemical degradation. International Journal of Hydrogen Energy, 2020, 45, 27653-27664.	3.8	29
16	A new cyclical generative adversarial network based data augmentation method for multiaxial fatigue life prediction. International Journal of Fatigue, 2022, 162, 106996.	2.8	29
17	Exploring the role of reinforcement in controlling fatigue crack propagation behavior of perfluorosulfonic-acid membranes. International Journal of Hydrogen Energy, 2018, 43, 6379-6389.	3.8	28
18	Biaxial fatigue crack propagation behavior of perfluorosulfonic-acid membranes. Journal of Power Sources, 2018, 384, 58-65.	4.0	24

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19	Effect of Pretreatment on Microstructure and Mechanical Properties of Nafionâ„¢ XL Composite Membrane. Fuel Cells, 2019, 19, 530-538.	1.5	24
20	Effects of thermal aging on uniaxial ratcheting behavior of vulcanised natural rubber. Polymer Testing, 2018, 70, 102-110.	2.3	23
21	Ratcheting behavior of pressurized-bending elbow pipe after thermal aging. International Journal of Pressure Vessels and Piping, 2019, 169, 160-169.	1.2	23
22	Exploring factors controlling pre-corrosion fatigue of 316L austenitic stainless steel in hydrofluoric acid. Engineering Failure Analysis, 2020, 113, 104556.	1.8	23
23	Deformation mechanisms and differential work hardening behavior of AZ31 magnesium alloy during biaxial deformation. Journal of Magnesium and Alloys, 2022, 10, 478-491.	5.5	22
24	In-plane biaxial cyclic mechanical behavior of proton exchange membranes. Journal of Power Sources, 2017, 360, 495-503.	4.0	21
25	Recent progress on the corrosion behavior of metallic materials in HF solution. Corrosion Reviews, 2021, 39, 313-337.	1.0	21
26	Evaluation of fracture toughness in different regions of weld joints using unloading compliance and normalization method. Engineering Fracture Mechanics, 2018, 195, 1-12.	2.0	19
27	Embrittlement induced fracture behavior and mechanisms of perfluorosulfonic-acid membranes after chemical degradation. Journal of Power Sources, 2020, 453, 227893.	4.0	18
28	Multiaxial low cycle fatigue behavior and life prediction method of 316LN stainless steel at 550 Â°C. International Journal of Fatigue, 2022, 156, 106637.	2.8	17
29	Mechanical properties of cerium oxide-modified vulcanised natural rubber at elevated temperature. Plastics, Rubber and Composites, 2017, 46, 306-313.	0.9	16
30	Mechanical properties and microstructure changes of proton exchange membrane under immersed conditions. Polymer Engineering and Science, 2014, 54, 2215-2221.	1.5	15
31	Evaluation of multiaxial fatigue life prediction criteria for PEEK. Theoretical and Applied Fracture Mechanics, 2014, 73, 128-135.	2.1	15
32	Fracture property of Nafion XL composite membrane determined by R-curve method. Journal of Power Sources, 2018, 398, 34-41.	4.0	15
33	Application of modified normalization method for J-R curve determination using clamped SENT specimens with varying in-plane and out-of-plane constraints. Engineering Fracture Mechanics, 2020, 230, 106968.	2.0	15
34	Corrosion mechanisms of nickel-based alloys in chloride-containing hydrofluoric acid solution. Engineering Failure Analysis, 2022, 140, 106580.	1.8	15
35	Nonlinear viscoelasticâ€“plastic constitutive description of proton exchange membrane under immersed condition. Journal of Power Sources, 2012, 213, 40-46.	4.0	14
36	Cyclic deformation behavior and failure mechanism of S32205 duplex stainless steel under torsional fatigue loadings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 786, 139443.	2.6	13

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37	Microcrack nucleation and early crack growth of a nuclear grade nitrogen alloyed austenitic stainless steel X2CrNiMo18.12 under thermomechanical fatigue loading. International Journal of Pressure Vessels and Piping, 2019, 172, 188-198.	1.2	12
38	Effect of torsional pre-strain on low cycle fatigue performance of 304 stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 50-57.	2.6	12
39	Temperature-dependent fatigue crack growth mechanisms of fuel cell membranes. International Journal of Fatigue, 2022, 154, 106554.	2.8	12
40	Interplay between temperature and biaxial loading on creep behavior of perfluorosulfonic-acid membranes. Journal of Power Sources, 2019, 444, 227309.	4.0	11
41	Biaxial fatigue crack growth in proton exchange membrane of fuel cells based on cyclic cohesive finite element method. International Journal of Mechanical Sciences, 2021, 189, 105946.	3.6	9
42	Role of ionic interactions in the deformation and fracture behavior of perfluorosulfonic-acid membranes. Soft Matter, 2020, 16, 1653-1667.	1.2	8
43	Constitutive and damage model for the whole-life uniaxial ratcheting behavior of SAC305. Mechanics of Materials, 2022, 171, 104333.	1.7	6
44	Torsional fatigue with axial constant stress of oligoâ€crystalline 316<scp>L</scp> stainless steel thin wire. Fatigue and Fracture of Engineering Materials and Structures, 2018, 41, 1929-1937.	1.7	5
45	Comparison of low cycle fatigue behavior of 304 stainless steels induced by tensile and torsional prestrain. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2247-2258.	1.7	5
46	Prediction of time-varying inner wall temperature of surge lines by a dynamic neural network. Nuclear Engineering and Design, 2021, 383, 111441.	0.8	4
47	Effect of catalyst layer on fatigue life and fracture mechanisms of fuel cell membrane. Fatigue and Fracture of Engineering Materials and Structures, 2022, 45, 687-700.	1.7	4
48	Effect of Hygrothermal Ageing on PFSA Ionomers' Structure/Property Relationship. ECS Transactions, 2015, 69, 1017-1025.	0.3	3
49	Deformation mechanisms of zirconium alloys under biaxial tension at room temperature. Materials Letters, 2020, 271, 127773.	1.3	3
50	Thermoâ€mechanical Coupling Properties of Proton Exchange Membrane in Liquid Water. Fuel Cells, 2015, 15, 472-478.	1.5	2
51	A new lightweight online database for corrosion rate analysis of fluorochemical engineering processes. , 2020, , .		0