E J Garboczi

List of Publications by Year in descending order

33 papers	3,193 citations	279798 23 h-index	395702 33 g-index
34 all docs	34 docs citations	34 times ranked	3124 citing authors

#	Article	IF	Citations
1	Geometrical percolation threshold of overlapping ellipsoids. Physical Review E, 1995, 52, 819-828.	2.1	702
2	Characterization of Metal Powders Used for Additive Manufacturing. Journal of Research of the National Institute of Standards and Technology, 2014, 119, 460.	1.2	363
3	Computer simulation of the diffusivity of cement-based materials. Journal of Materials Science, 1992, 27, 2083-2092.	3.7	314
4	Computation of the linear elastic properties of random porous materials with a wide variety of microstructure. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 1033-1054.	2.1	229
5	Cross-property relations and permeability estimation in model porous media. Physical Review E, 1993, 48, 4584-4591.	2.1	150
6	Intrinsic viscosity and the electrical polarizability of arbitrarily shaped objects. Physical Review E, 2001, 64, 061401.	2.1	132
7	Computer simulation study of the effective viscosity in Brinkmanâ€™s equation. Physics of Fluids, 1994, 6, 1434-1439.	4.0	127
8	Length scales relating the fluid permeability and electrical conductivity in random two-dimensional model porous media. Physical Review B, 1992, 46, 6080-6090.	3.2	119
9	Linear elastic properties of 2D and 3D models of porous materials made from elongated objects. Modelling and Simulation in Materials Science and Engineering, 2001, 9, 371-390.	2.0	113
10	Microstructure and transport properties of porous building materials. II: Three-dimensional X-ray tomographic studies. Materials and Structures/Materiaux Et Constructions, 2000, 33, 147-153.	3.1	107
11	Intrinsic conductivity of objects having arbitrary shape and conductivity. Physical Review E, 1996, 53, 6169-6180.	2.1	101
12	Universal conductivity curve for a plane containing random holes. Physical Review A, 1991, 43, 6473-6482.	2.5	85
13	Intrinsic Viscosity and the Polarizability of Particles Having a Wide Range of Shapes. Advances in Chemical Physics, 2007, , 85-153.	0.3	85
14	Anm: a geometrical model for the composite structure of mortar and concrete using real-shape particles. Materials and Structures/Materiaux Et Constructions, 2016, 49, 149-158.	3.1	66
15	Effective-medium theory of percolation on central-force elastic networks. II. Further results. Physical Review B, 1985, 31, 7276-7281.	3.2	61
16	Investigation of pore structure in cobalt chrome additively manufactured parts using X-ray computed tomography and three-dimensional image analysis. Additive Manufacturing, 2017, 17, 23-38.	3.0	57
17	The elastic moduli of simple twoâ€dimensional isotropic composites: Computer simulation and effective medium theory. Journal of Applied Physics, 1992, 72, 5948-5955.	2.5	55
18	Elastic properties of central-force networks with bond-length mismatch. Physical Review B, 1990, 42, 8405-8417.	3.2	50

#	Article	IF	Citations
19	Impedance/Dielectric Spectroscopy of Electroceramics?Part 1: Evaluation of Composite Models for Polycrystalline Ceramics. Journal of Electroceramics, 2005, 14, 283-291.	2.0	47
20	Density of states for random-central-force elastic networks. Physical Review B, 1985, 32, 4513-4518.	3.2	34
21	Site percolation on central-force elastic networks. Physical Review B, 1987, 35, 8579-8586.	3.2	32
22	Interfacial Zone Percolation in Concrete: Effects of Interfacial Zone Thickness and Aggregate Shape. Materials Research Society Symposia Proceedings, 1994, 370, 437.	0.1	26
23	Impedance/Dielectric Spectroscopy of Electroceramics?Part 2: Grain Shape Effects and Local Properties of Polycrystalline Ceramics. Journal of Electroceramics, 2005, 14, 293-301.	2.0	25
24	Investigation of the Effect of Artificial Internal Defects on the Tensile Behavior of Laser Powder Bed Fusion 17â€“4 Stainless Steel Samples: Simultaneous Tensile Testing and X-Ray Computed Tomography. Experimental Mechanics, 2020, 60, 987-1004.	2.0	24
25	Effective-medium theory of percolation on central-force elastic networks. III. The superelastic problem. Physical Review B, 1986, 33, 3289-3294.	3.2	23
26	X-Ray Microtomography of an Astm C109 Mortar Exposed to Sulfate Attack. Materials Research Society Symposia Proceedings, 1994, 370, 77.	0.1	21
27	Computational Materials Science of Cement-Based Materials. MRS Bulletin, 1993, 18, 50-54.	3.5	19
28	Cauchy relations for central-force random networks. Physical Review B, 1987, 36, 2115-2120.	3.2	11
29	Effective force constant for a central-force random network. Physical Review B, 1988, 37, 318-320.	3.2	6
30	Elastic softening versus amorphization in a simple model of ion-induced radiation damage. Physical Review B, 1989, 39, 2472-2475.	3.2	4
31	Local elastic moduli of simple random composites computed at different length scales. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	3.1	3
32	Synchrotron 4-dimensional imaging of two-phase flow through porous media. MRS Advances, 2016, 1, 2757-2761.	0.9	1
33	RILEM and the National Institute of Standards and Technology (NIST) over the past 50Âyears. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	3.1	1