Oraib Al-Ketan

List of Publications by Year in Descending Order

60 papers	2,121 citations	26 h-index	45 g-index
65 ext. papers	3,154 ext. citations	4.9 avg, IF	5.99 L-index

#	Paper	IF	Citations
60	Effective stiffness, strength, buckling and anisotropy of foams based on nine unique triple periodic minimal surfaces. *International Journal of Solids and Structures*, **2022**, 238, 111418	3.1	1
59	Biomimetic Materials for Engineering Applications **2022**, 25-34		
58	On the effect of porosity and functional grading of 3D printable triply periodic minimal surface (TPMS) based architected lattices embedded with a phase change material. *International Journal of Heat and Mass Transfer*, **2022**, 183, 122111	4.9	0
57	Fluid flow and heat transfer of porous TPMS architected heat sinks in free convection environment. *Case Studies in Thermal Engineering*, **2022**, 33, 101944	5.6	1
56	Flexural Properties of Functionally Graded Additively Manufactured AlSi10Mg TPMS Latticed-beams. *International Journal of Mechanical Sciences*, **2022**, 107293	5.5	1
55	An optimization case study to design additively manufacturable porous heat sinks based on triply periodic minimal surface (TPMS) lattices. *Case Studies in Thermal Engineering*, **2022**, 102161	5.6	0
54	Forced Convection Computational Fluid Dynamics Analysis of Architected and Three-Dimensional Printable Heat Sinks Based on Triply Periodic Minimal Surfaces. *Journal of Thermal Science and Engineering Applications*, **2021**, 13,	1.9	17
53	Three-Dimensional Virtual and Printed Prototypes in Complex Congenital and Pediatric Cardiac Surgery-A Multidisciplinary Team-Learning Experience. *Biomolecules*, **2021**, 11,	5.9	1
52	Nature-inspired triply periodic minimal surface-based structures in sheet and solid configurations for performance enhancement of a low-thermal-conductivity phase-change material for latent-heat thermal-energy-storage applications. *International Journal of Thermal Sciences*, **2021**, 107361	4.1	2
51	Programmed Plastic Deformation in Mathematically-Designed Architected Cellular Materials. *Metals*, **2021**, 11, 1622	2.3	2
50	Mechanical properties of additively-manufactured sheet-based gyroidal stochastic cellular materials. *Additive Manufacturing*, **2021**, 48, 102418	6.1	5
49	Comparative assessment of the effects of 3D printed feed spacers on process performance in MD systems. *Desalination*, **2021**, 503, 114940	10.3	5
48	A multi-technique tomography-based approach for non-invasive characterization of additive manufacturing components in view of vacuum/UHV applications: preliminary results. *Rendiconti Lincei*, **2021**, 32, 463-477	1.7	1
47	Heat transfer performance of a finned metal foam-phase change material (FMF-PCM) system incorporating triply periodic minimal surfaces (TPMS). *International Journal of Heat and Mass Transfer*, **2021**, 170, 121001	4.9	36
46	Using triply periodic minimal surfaces (TPMS)-based metal foams structures as skeleton for metal-foam-PCM composites for thermal energy storage and energy management applications. *International Communications in Heat and Mass Transfer*, **2021**, 124, 105265	5.8	23
45	Quasi-static and dynamic compressive behaviour of sheet TPMS cellular structures. *Composite Structures*, **2021**, 266, 113801	5.3	25
44	Thermal characterization of 3D-Printed lattices based on triply periodic minimal surfaces embedded with organic phase change material. *Case Studies in Thermal Engineering*, **2021**, 27, 101315	5.6	6

43	Development of novel hybrid TPMS cellular lattices and their mechanical characterisation. *Journal of Materials Research and Technology*, **2021**, 15, 1318-1329	5.5	3
42	Effective Anisotropic Elastic and Plastic Yield Properties of Periodic Foams Derived from Triply Periodic Schoen I-WP Minimal Surface. *Journal of Engineering Mechanics - ASCE*, **2020**, 146, 04020030	2.4	11
41	Design and prototyping soft-rigid tendon-driven modular grippers using interpenetrating phase composites materials. *International Journal of Robotics Research*, **2020**, 39, 1635-1646	5.7	15
40	Microstructural Characterization and Thermomechanical Behavior of Additively Manufactured AlSi10Mg Material and Architected Cellular Structures. *Minerals, Metals and Materials Series*, **2020**, 165-173	0.2	2
39	Compression and buckling of microarchitectured Neovius-lattice. *Extreme Mechanics Letters*, **2020**, 37, 100688	3.9	15
38	Functionally graded and multi-morphology sheet TPMS lattices: Design, manufacturing, and mechanical properties. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 102, 103520	4.1	71
37	MSLattice: A free software for generating uniform and graded lattices based on triply periodic minimal surfaces. *Material Design and Processing Communications*, **2020**, e205	0.9	21
36	Mechanical behavior of polymeric selective laser sintered ligament and sheet based lattices of triply periodic minimal surface architectures. *Materials and Design*, **2020**, 196, 109100	8.1	11
35	Impacts of feed spacer design on UF membrane cleaning efficiency. *Journal of Membrane Science*, **2020**, 616, 118571	9.6	5
34	Novel static mixers based on triply periodic minimal surface (TPMS) architectures. *Journal of Environmental Chemical Engineering*, **2020**, 8, 104289	6.8	13
33	Microstructural characterization and thermomechanical behavior of additively manufactured AlSi10Mg sheet cellular materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 791, 139714	5.3	19
32	Viscoelastic properties of architected foams based on the Schoen IWP triply periodic minimal surface. *Mechanics of Advanced Materials and Structures*, **2020**, 27, 775-788	1.8	7
31	3D printed spacers for organic fouling mitigation in membrane distillation. *Journal of Membrane Science*, **2019**, 581, 331-343	9.6	41
30	Mechanical Response of 3D Printed Bending-Dominated Ligament-Based Triply Periodic Cellular Polymeric Solids. *Journal of Materials Engineering and Performance*, **2019**, 28, 2316-2326	1.6	26
29	3D printed spacers based on TPMS architectures for scaling control in membrane distillation. *Journal of Membrane Science*, **2019**, 581, 38-49	9.6	36
28	Additive manufacturing of architected catalytic ceramic substrates based on triply periodic minimal surfaces. *Journal of the American Ceramic Society*, **2019**, 102, 6176-6193	3.8	40
27	Multifunctional Mechanical Metamaterials Based on Triply Periodic Minimal Surface Lattices. *Advanced Engineering Materials*, **2019**, 21, 1900524	3.5	121
26	Mechanical properties of 3D printed polymeric Gyroid cellular structures: Experimental and finite element study. *Materials and Design*, **2019**, 165, 107597	8.1	123

25	On Mechanical Properties of Cellular Steel Solids With Shell-Like Periodic Architectures Fabricated by Selective Laser Sintering. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2019**, 141,	1.8	35
24	Modeling Time and Frequency Domain Viscoelastic Behavior of Architectured Foams. *Journal of Engineering Mechanics - ASCE*, **2018**, 144, 04018029	2.4	11
23	The effect of architecture on the mechanical properties of cellular structures based on the IWP minimal surface. *Journal of Materials Research*, **2018**, 33, 343-359	2.5	49
22	Topology-mechanical property relationship of 3D printed strut, skeletal, and sheet based periodic metallic cellular materials. *Additive Manufacturing*, **2018**, 19, 167-183	6.1	230
21	3D printed feed spacers based on triply periodic minimal surfaces for flux enhancement and biofouling mitigation in RO and UF. *Desalination*, **2018**, 425, 12-21	10.3	79
20	Nature-Inspired Lightweight Cellular Co-Continuous Composites with Architected Periodic Gyroidal Structures. *Advanced Engineering Materials*, **2018**, 20, 1700549	3.5	40
19	3D printed triply periodic minimal surfaces as spacers for enhanced heat and mass transfer in membrane distillation. *Desalination*, **2018**, 443, 256-271	10.3	74
18	Microarchitected Stretching-Dominated Mechanical Metamaterials with Minimal Surface Topologies. *Advanced Engineering Materials*, **2018**, 20, 1800029	3.5	74
17	Mass transfer analysis of ultrafiltration using spacers based on triply periodic minimal surfaces: Effects of spacer design, directionality and voidage. *Journal of Membrane Science*, **2018**, 561, 89-98	9.6	36
16	Mechanical properties of 3D printed polymeric cellular materials with triply periodic minimal surface architectures. *Materials and Design*, **2017**, 122, 255-267	8.1	152
15	Mechanical properties of periodic interpenetrating phase composites with novel architected microstructures. *Composite Structures*, **2017**, 176, 9-19	5.3	68
14	Stiffness and yield strength of architectured foams based on the Schwarz Primitive triply periodic minimal surface. *International Journal of Plasticity*, **2017**, 95, 1-20	7.6	68
13	Time dependent response of architectured Neovius foams. *International Journal of Mechanical Sciences*, **2017**, 126, 106-119	5.5	29
12	Mechanical Properties of a New Type of Architected Interpenetrating Phase Composite Materials. *Advanced Materials Technologies*, **2017**, 2, 1600235	6.8	70
11	Effective conductivities and elastic moduli of novel foams with triply periodic minimal surfaces. *Mechanics of Materials*, **2016**, 95, 102-115	3.3	115
10	Finite element prediction of effective elastic properties of interpenetrating phase composites with architectured 3D sheet reinforcements. *International Journal of Solids and Structures*, **2016**, 83, 169-182	3.1	58
9	Mechanical properties of 3D printed interpenetrating phase composites with novel architectured 3D solid-sheet reinforcements. *Composites Part A: Applied Science and Manufacturing*, **2016**, 84, 266-280	8.4	65
8	Thermo-Electro-Mechanical Properties of Interpenetrating Phase Composites with Periodic Architectured Reinforcements. *Advanced Structured Materials*, **2015**, 1-18	0.6	8

7	Micromechanical finite element predictions of a reduced coefficient of thermal expansion for 3D periodic architectured interpenetrating phase composites. *Composite Structures*, **2015**, 133, 85-97	5.3	59
6	Electrical conductivity of 3D periodic architectured interpenetrating phase composites with carbon nanostructured-epoxy reinforcements. *Composites Science and Technology*, **2015**, 118, 127-134	8.6	35
5	Finite element predictions of effective multifunctional properties of interpenetrating phase composites with novel triply periodic solid shell architectured reinforcements. *International Journal of Mechanical Sciences*, **2015**, 92, 80-89	5.5	54
4	Potential of using olive pomace as a source of renewable energy for electricity generation in the Kingdom of Jordan. *Journal of Renewable and Sustainable Energy*, **2012**, 4, 063132	2.5	2
3	Scalable synthesis, characterization and testing of 3D architected gyroid graphene lattices from additively manufactured templates. *Journal of Micromechanics and Molecular Physics*,1-12	1.4	1
2	On Stiffness, Strength, Anisotropy, and Buckling of 30 Strut-Based Lattices with Cubic Crystal Structures. *Advanced Engineering Materials*,2101379	3.5	0
1	Bending behavior of triply periodic minimal surface foam-filled tubes. *Mechanics of Advanced Materials and Structures*,1-14	1.8	0