## Oraib Al-Ketan

## List of Publications by Citations

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60
papers

2,121
citations

45
g-index

65
ext. papers

2,121
26
h-index

4.9
avg, IF

5.99
L-index

#	Paper	IF	Citations
60	Topology-mechanical property relationship of 3D printed strut, skeletal, and sheet based periodic metallic cellular materials. <i>Additive Manufacturing</i> , <b>2018</b> , 19, 167-183	6.1	230
59	Mechanical properties of 3D printed polymeric cellular materials with triply periodic minimal surface architectures. <i>Materials and Design</i> , <b>2017</b> , 122, 255-267	8.1	152
58	Mechanical properties of 3D printed polymeric Gyroid cellular structures: Experimental and finite element study. <i>Materials and Design</i> , <b>2019</b> , 165, 107597	8.1	123
57	Multifunctional Mechanical Metamaterials Based on Triply Periodic Minimal Surface Lattices. <i>Advanced Engineering Materials</i> , <b>2019</b> , 21, 1900524	3.5	121
56	Effective conductivities and elastic moduli of novel foams with triply periodic minimal surfaces. <i>Mechanics of Materials</i> , <b>2016</b> , 95, 102-115	3.3	115
55	3D printed feed spacers based on triply periodic minimal surfaces for flux enhancement and biofouling mitigation in RO and UF. <i>Desalination</i> , <b>2018</b> , 425, 12-21	10.3	79
54	3D printed triply periodic minimal surfaces as spacers for enhanced heat and mass transfer in membrane distillation. <i>Desalination</i> , <b>2018</b> , 443, 256-271	10.3	74
53	Microarchitected Stretching-Dominated Mechanical Metamaterials with Minimal Surface Topologies. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1800029	3.5	74
52	Functionally graded and multi-morphology sheet TPMS lattices: Design, manufacturing, and mechanical properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 102, 103520	4.1	71
51	Mechanical Properties of a New Type of Architected Interpenetrating Phase Composite Materials. <i>Advanced Materials Technologies</i> , <b>2017</b> , 2, 1600235	6.8	70
50	Mechanical properties of periodic interpenetrating phase composites with novel architected microstructures. <i>Composite Structures</i> , <b>2017</b> , 176, 9-19	5.3	68
49	Stiffness and yield strength of architectured foams based on the Schwarz Primitive triply periodic minimal surface. <i>International Journal of Plasticity</i> , <b>2017</b> , 95, 1-20	7.6	68
48	Mechanical properties of 3D printed interpenetrating phase composites with novel architectured 3D solid-sheet reinforcements. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2016</b> , 84, 266-280	8.4	65
47	Micromechanical finite element predictions of a reduced coefficient of thermal expansion for 3D periodic architectured interpenetrating phase composites. <i>Composite Structures</i> , <b>2015</b> , 133, 85-97	5.3	59
46	Finite element prediction of effective elastic properties of interpenetrating phase composites with architectured 3D sheet reinforcements. <i>International Journal of Solids and Structures</i> , <b>2016</b> , 83, 169-182	3.1	58
45	Finite element predictions of effective multifunctional properties of interpenetrating phase composites with novel triply periodic solid shell architectured reinforcements. <i>International Journal of Mechanical Sciences</i> , <b>2015</b> , 92, 80-89	5.5	54
44	The effect of architecture on the mechanical properties of cellular structures based on the IWP minimal surface. <i>Journal of Materials Research</i> , <b>2018</b> , 33, 343-359	2.5	49

## (2020-2019)

3D printed spacers for organic fouling mitigation in membrane distillation. <i>Journal of Membrane Science</i> , <b>2019</b> , 581, 331-343	9.6	41	
Additive manufacturing of architected catalytic ceramic substrates based on triply periodic minimal surfaces. <i>Journal of the American Ceramic Society</i> , <b>2019</b> , 102, 6176-6193	3.8	40	
Nature-Inspired Lightweight Cellular Co-Continuous Composites with Architected Periodic Gyroidal Structures. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1700549	3.5	40	
3D printed spacers based on TPMS architectures for scaling control in membrane distillation. <i>Journal of Membrane Science</i> , <b>2019</b> , 581, 38-49	9.6	36	
Heat transfer performance of a finned metal foam-phase change material (FMF-PCM) system incorporating triply periodic minimal surfaces (TPMS). <i>International Journal of Heat and Mass Transfer</i> , <b>2021</b> , 170, 121001	4.9	36	
Mass transfer analysis of ultrafiltration using spacers based on triply periodic minimal surfaces: Effects of spacer design, directionality and voidage. <i>Journal of Membrane Science</i> , <b>2018</b> , 561, 89-98	9.6	36	
Electrical conductivity of 3D periodic architectured interpenetrating phase composites with carbon nanostructured-epoxy reinforcements. <i>Composites Science and Technology</i> , <b>2015</b> , 118, 127-134	8.6	35	
On Mechanical Properties of Cellular Steel Solids With Shell-Like Periodic Architectures Fabricated by Selective Laser Sintering. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2019</b> , 141,	1.8	35	
Time dependent response of architectured Neovius foams. <i>International Journal of Mechanical Sciences</i> , <b>2017</b> , 126, 106-119	5.5	29	
Mechanical Response of 3D Printed Bending-Dominated Ligament-Based Triply Periodic Cellular Polymeric Solids. <i>Journal of Materials Engineering and Performance</i> , <b>2019</b> , 28, 2316-2326	1.6	26	
Quasi-static and dynamic compressive behaviour of sheet TPMS cellular structures. <i>Composite Structures</i> , <b>2021</b> , 266, 113801	5.3	25	
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	
MSLattice: A free software for generating uniform and graded lattices based on triply periodic minimal surfaces. <i>Material Design and Processing Communications</i> , <b>2020</b> , e205	0.9	21	
Microstructural characterization and thermomechanical behavior of additively manufactured AlSi10Mg sheet cellular materials. <i>Materials Science &amp; Description of Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 791, 139714	5.3	19	
Forced Convection Computational Fluid Dynamics Analysis of Architected and Three-Dimensional Printable Heat Sinks Based on Triply Periodic Minimal Surfaces. <i>Journal of Thermal Science and Engineering Applications</i> , <b>2021</b> , 13,	1.9	17	
Design and prototyping softfigid tendon-driven modular grippers using interpenetrating phase composites materials. <i>International Journal of Robotics Research</i> , <b>2020</b> , 39, 1635-1646	5.7	15	
Compression and buckling of microarchitectured Neovius-lattice. <i>Extreme Mechanics Letters</i> , <b>2020</b> , 37, 100688	3.9	15	
Novel static mixers based on triply periodic minimal surface (TPMS) architectures. <i>Journal of Environmental Chemical Engineering</i> , <b>2020</b> , 8, 104289	6.8	13	
	Additive manufacturing of architected catalytic ceramic substrates based on triply periodic minimal surfaces. <i>Journal of the American Ceramic Society</i> , 2019, 102, 6176-6193  Nature-Inspired Lightweight Cellular Co-Continuous Composites with Architected Periodic Gyroidal Structures. <i>Advanced Engineering Materials</i> , 2018, 20, 1700549  3D printed spacers based on TPMS architectures for scaling control in membrane distillation. <i>Journal of Membrane Science</i> , 2019, 581, 38-49  Heat transfer performance of a finned metal foam-phase change material (FMF-PCM) system incorporating triply periodic minimal surfaces (TPMS). <i>International Journal of Heat and Mass Transfer</i> , 2021, 170, 121001  Mass transfer analysis of ultrafiltration using spacers based on triply periodic minimal surfaces: Effects of spacer design, directionality and voidage. <i>Journal of Membrane Science</i> , 2018, 561, 89-98  Electrical conductivity of 3D periodic architectured interpenetrating phase composites with carbon nanostructured-epoxy reinforcements. <i>Composites Science and Technology</i> , 2015, 118, 127-134  On Mechanical Properties of Cellular Steel Solids With Shell-Like Periodic Architectures Fabricated by Selective Laser Sintering. <i>Journal of Engineering Materials and Technology</i> , 7015, 118, 127-134  On Mechanical Response of architectured Neovius foams. <i>International Journal of Mechanical Sciences</i> , 2017, 126, 106-119  Mechanical Response of 3D Printed Bending-Dominated Ligament-Based Triply Periodic Cellular Polymeric Solids. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 2316-2326  Quasi-static and dynamic compressive behaviour of sheet TPMS cellular structures. <i>Composite Structures</i> , 2021, 266, 113801  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. <i>International Communications in Heat and Mass Transfer</i> , 2021, 124, 105265  Microstructural characterization and thermomechanical behavior of addi	Additive manufacturing of architected catalytic ceramic substrates based on triply periodic minimal surfaces. <i>Journal of the American Ceramic Society</i> , 2019, 102, 6176-6193  Nature-inspired Lightweight Cellular Co-Continuous Composites with Architected Periodic Gyroidal Structures. <i>Advanced Engineering Materials</i> , 2018, 20, 1700549  3.5  3.6  3.7  3.7  3.8  3.8  3.9  3.9  3.9  3.9  3.9  3.9	Additive manufacturing of architected catalytic ceramic substrates based on triply periodic minimal surfaces. <i>Journal of the American Ceramic Society</i> , 2019, 102, 6176-6193  Nature-Inspired Lightweight Cellular Co-Continuous Composites with Architected Periodic Gyroidal Structures. <i>Advanced Engineering Materials</i> , 2018, 20, 1700549  35 49  Dprinted spacers based on TPMS architectures for scaling control in membrane distillation.  Journal of Membrane Science, 2019, 581, 384-9  Heat transfer performance of a finned metal foam-phase change material (FMF-PCM) system incorporating triply periodic minimal surfaces (TPMS). <i>International Journal of Heat and Mass Transfer</i> , 2021, 170, 121001  Mass transfer analysis of ultrafiltration using spacers based on triply periodic minimal surfaces: Effects of spacer design, directionality and voidage. <i>Journal of Membrane Science</i> , 2018, 561, 89-98  Electrical conductivity of 3D periodic architectured interpnetrating phase composites with carbon anostructured-epoxy reinforcements. <i>Composites Science and Technology</i> , 2015, 118, 127-134  On Mechanical Properties of Cellular Steel Solids With Shell-Like Periodic Architectures Fabricated by Selective Laser Sintering. <i>Journal of Engineering Materials and Technology</i> , Transactions of the ASME, 2019, 141.  Time dependent response of architectured Neovius foams. <i>International Journal of Mechanical Sciences</i> , 2017, 126, 106-119  Mechanical Response of 3D Printed Bending-Dominated Ligament-Based Triply Periodic Cellular Polymeric Solids. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 2316-2326  Quasi-static and dynamic compressive behaviour of sheet TPMS cellular structures. <i>Composites Structures</i> , 2021, 266, 113801  Using triply periodic minimal surfaces (TPMS)-based metal foams structures as skeleton for metal-foam-PCM composites for themal energy storage and energy management applications. <i>International Communications in Heat and Mass Transfer</i> , 2021, 124, 105265  MSLattice. A Free software for generating uniform

25	Effective Anisotropic Elastic and Plastic Yield Properties of Periodic Foams Derived from Triply Periodic Schoen I-WP Minimal Surface. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2020</b> , 146, 04020030	2.4	11
24	Modeling Time and Frequency Domain Viscoelastic Behavior of Architectured Foams. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2018</b> , 144, 04018029	2.4	11
23	Mechanical behavior of polymeric selective laser sintered ligament and sheet based lattices of triply periodic minimal surface architectures. <i>Materials and Design</i> , <b>2020</b> , 196, 109100	8.1	11
22	Thermo-Electro-Mechanical Properties of Interpenetrating Phase Composites with Periodic Architectured Reinforcements. <i>Advanced Structured Materials</i> , <b>2015</b> , 1-18	0.6	8
21	Viscoelastic properties of architected foams based on the Schoen IWP triply periodic minimal surface. <i>Mechanics of Advanced Materials and Structures</i> , <b>2020</b> , 27, 775-788	1.8	7
20	Thermal characterization of 3D-Printed lattices based on triply periodic minimal surfaces embedded with organic phase change material. <i>Case Studies in Thermal Engineering</i> , <b>2021</b> , 27, 101315	5.6	6
19	Mechanical properties of additively-manufactured sheet-based gyroidal stochastic cellular materials. <i>Additive Manufacturing</i> , <b>2021</b> , 48, 102418	6.1	5
18	Impacts of feed spacer design on UF membrane cleaning efficiency. <i>Journal of Membrane Science</i> , <b>2020</b> , 616, 118571	9.6	5
17	Comparative assessment of the effects of 3D printed feed spacers on process performance in MD systems. <i>Desalination</i> , <b>2021</b> , 503, 114940	10.3	5
16	Development of novel hybrid TPMS cellular lattices and their mechanical characterisation. <i>Journal of Materials Research and Technology</i> , <b>2021</b> , 15, 1318-1329	5.5	3
15	Microstructural Characterization and Thermomechanical Behavior of Additively Manufactured AlSi10Mg Material and Architected Cellular Structures. <i>Minerals, Metals and Materials Series</i> , <b>2020</b> , 165-	193	2
14	Potential of using olive pomace as a source of renewable energy for electricity generation in the Kingdom of Jordan. <i>Journal of Renewable and Sustainable Energy</i> , <b>2012</b> , 4, 063132	2.5	2
13	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. <i>International Journal of Thermal Sciences</i> , <b>2021</b> , 107361	4.1	2
12	Programmed Plastic Deformation in Mathematically-Designed Architected Cellular Materials. <i>Metals</i> , <b>2021</b> , 11, 1622	2.3	2
11	Scalable synthesis, characterization and testing of 3D architected gyroid graphene lattices from additively manufactured templates. <i>Journal of Micromechanics and Molecular Physics</i> ,1-12	1.4	1
10	Three-Dimensional Virtual and Printed Prototypes in Complex Congenital and Pediatric Cardiac Surgery-A Multidisciplinary Team-Learning Experience. <i>Biomolecules</i> , <b>2021</b> , 11,	5.9	1
9	Effective stiffness, strength, buckling and anisotropy of foams based on nine unique triple periodic minimal surfaces. <i>International Journal of Solids and Structures</i> , <b>2022</b> , 238, 111418	3.1	1
8	A multi-technique tomography-based approach for non-invasive characterization of additive manufacturing components in view of vacuum/UHV applications: preliminary results. <i>Rendiconti</i>	1.7	1

## LIST OF PUBLICATIONS

7	Fluid flow and heat transfer of porous TPMS architected heat sinks in free convection environment. <i>Case Studies in Thermal Engineering</i> , <b>2022</b> , 33, 101944	5.6	1
6	Flexural Properties of Functionally Graded Additively Manufactured AlSi10Mg TPMS Latticed-beams. <i>International Journal of Mechanical Sciences</i> , <b>2022</b> , 107293	5.5	1
5	On Stiffness, Strength, Anisotropy, and Buckling of 30 Strut-Based Lattices with Cubic Crystal Structures. <i>Advanced Engineering Materials</i> ,2101379	3.5	О
4	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. <i>International Journal of Heat and Mass Transfer</i> , <b>2022</b> , 183, 122111	4.9	O
3	Bending behavior of triply periodic minimal surface foam-filled tubes. <i>Mechanics of Advanced Materials and Structures</i> ,1-14	1.8	O
2	An optimization case study to design additively manufacturable porous heat sinks based on triply periodic minimal surface (TPMS) lattices. <i>Case Studies in Thermal Engineering</i> , <b>2022</b> , 102161	5.6	O

Biomimetic Materials for Engineering Applications **2022**, 25-34