

Daphne Attard

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

3,689
citations

136950

32
h-index

128289

60
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68
all docs

68
docs citations

68
times ranked

1916
citing authors

#	ARTICLE	IF	CITATIONS
1	Auxetic Behavior and Other Negative Thermomechanical Properties from Rotating Rigid Units. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, .	2.4	27
2	Blisters and Calluses from Rowing: Prevalence, Perceptions and Pain Tolerance. <i>Medicina (Lithuania)</i> , 2022, 58, 77.	2.0	5
3	Implementation of periodic boundary conditions for loading of mechanical metamaterials and other complex geometric microstructures using finite element analysis. <i>Engineering With Computers</i> , 2021, 37, 1765.	6.1	42
4	Auxetic mechanical metamaterials with diamond and elliptically shaped perforations. <i>Acta Mechanica</i> , 2021, 232, 779-791.	2.1	21
5	Mathematical modeling of auxetic systems: bridging the gap between analytical models and observation. <i>International Journal of Mechanical and Materials Engineering</i> , 2021, 16, .	2.2	7
6	The Auxetic Behavior of a General Star-shaped Structure. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2100158.	1.5	9
7	Auxetic-Inspired Honeycomb Macrostructures With Anomalous Tailormade Thermal Expansion Properties Including "Negative" Heat-Shrinking Characteristics. <i>Frontiers in Materials</i> , 2021, 8, .	2.4	4
8	The Auxetic Behavior of a General Star-shaped Structure. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, .	1.5	1
9	A Novel Mechanical Metamaterial Exhibiting Auxetic Behavior and Negative Compressibility. <i>Materials</i> , 2020, 13, 79.	2.9	31
10	On the Design of Multimaterial Honeycombs and Structures with T-shaped Joints Having Tunable Thermal and Compressibility Properties. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900633.	1.5	4
11	The Multidirectional Auxeticity and Negative Linear Compressibility of a 3D Mechanical Metamaterial. <i>Materials</i> , 2020, 13, 2193.	2.9	24
12	Smart Honeycomb "Mechanical Metamaterials" with Tunable Poisson's Ratios. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900707.	1.5	17
13	Negative Mechanical Materials and Metamaterials: Giant Out-of-Plane Auxeticity from Multi-Dimensional Wine-Rack-like Motifs. <i>MRS Advances</i> , 2020, 5, 717-725.	0.9	4
14	Star-shaped "A novel class of auxetic hierarchal structures. <i>International Journal of Mechanical Sciences</i> , 2020, 179, 105631.	6.7	46
15	Analysis of the Deformation Behavior and Mechanical Properties of Slit-Perforated Auxetic Metamaterials. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800153.	1.5	23
16	On the Compressibility Properties of the Wine-Rack-Like Carbon Allotropes and Related Poly(phenylacetylene) Systems. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800572.	1.5	20
17	Mechanical metamaterials with star-shaped pores exhibiting negative and zero Poisson's ratio. <i>Materials and Design</i> , 2018, 146, 28-37.	7.0	133
18	Giant Auxetic Behaviour in Engineered Graphene. <i>Annalen Der Physik</i> , 2018, 530, 1700330.	2.4	24

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19	Auxetic metamaterials inspired from wine-racks. <i>Journal of Materials Science</i> , 2018, 53, 5079-5091.	3.7	12
20	Out-of-plane doming behaviour from constrained auxetics. <i>Smart Materials and Structures</i> , 2018, 27, 015020.	3.5	15
21	An analytical and finite element study on the mechanical properties of irregular hexachiral honeycombs. <i>Smart Materials and Structures</i> , 2018, 27, 105016.	3.5	35
22	Filtration Properties of Auxetics with Rotating Rigid Units. <i>Materials</i> , 2018, 11, 725.	2.9	15
23	On the dynamics and control of mechanical properties of hierarchical rotating rigid unit auxetics. <i>Scientific Reports</i> , 2017, 7, 46529.	3.3	52
24	On the Mechanical Properties of Graphyne, Graphdiyne, and Other Poly(Phenylacetylene) Networks. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1700380.	1.5	18
25	Negative linear compressibility from rotating rigid units. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1410-1418.	1.5	34
26	Nano networks exhibiting negative linear compressibility. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1419-1427.	1.5	9
27	Unimode metamaterials exhibiting negative linear compressibility and negative thermal expansion. <i>Smart Materials and Structures</i> , 2016, 25, 025009.	3.5	76
28	Auxetic metamaterials exhibiting giant negative Poisson's ratios. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 425-430.	2.4	118
29	Internal rib structure can be predicted using mathematical models: An anatomic study comparing the chest to a shell dome with application to understanding fractures. <i>Clinical Anatomy</i> , 2015, 28, 1008-1016.	2.7	4
30	External rib structure can be predicted using mathematical models: An anatomical study with application to understanding fractures and intercostal muscle function. <i>Clinical Anatomy</i> , 2015, 28, 512-519.	2.7	9
31	Hierarchical Auxetic Mechanical Metamaterials. <i>Scientific Reports</i> , 2015, 5, 8395.	3.3	226
32	A hypothesis for reactivation of pulmonary tuberculosis: How thoracic wall shape affects the epidemiology of tuberculosis. <i>Clinical Anatomy</i> , 2015, 28, 614-620.	2.7	6
33	Influence of translational disorder on the mechanical properties of hexachiral honeycomb systems. <i>Composites Part B: Engineering</i> , 2015, 80, 84-91.	12.0	72
34	Tailoring Graphene to Achieve Negative Poisson's Ratio Properties. <i>Advanced Materials</i> , 2015, 27, 1455-1459.	21.0	275
35	Modeling auxetic foams through semi-rigid rotating triangles. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 297-306.	1.5	52
36	On the properties of real finite-sized planar and tubular stent-like auxetic structures. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 321-327.	1.5	58

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37	On the suitability of hexagonal honeycombs as stent geometries. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 328-337.	1.5	50
38	A realistic generic model for anti-tetrachiral systems. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 2012-2019.	1.5	85
39	Negative thermal expansion from disc, cylindrical, and needle shaped inclusions. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 2051-2056.	1.5	13
40	Honeycomb composites with auxetic out-of-plane characteristics. <i>Composite Structures</i> , 2013, 106, 150-159.	5.8	59
41	On the mechanical properties of centrosymmetric honeycombs with T-shaped joints. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 2002-2011.	1.5	13
42	On the auxetic properties of generic rotating rigid triangles. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012, 468, 810-830.	2.1	81
43	Three-dimensional cellular structures with negative Poisson's ratio and negative compressibility properties. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012, 468, 3121-3138.	2.1	85
44	A three-dimensional rotating rigid units network exhibiting negative Poisson's ratios. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 1330-1338.	1.5	85
45	Unusual Thermoelastic Properties of Methanol Monohydrate. <i>Science</i> , 2011, 331, 687-688.	12.6	21
46	An Improved Analytical Model for the Elastic Constants of Auxetic and Conventional Hexagonal Honeycombs. <i>Frontiers in Forests and Global Change</i> , 2011, 30, 287-310.	1.1	38
47	Negative linear compressibility of hexagonal honeycombs and related systems. <i>Scripta Materialia</i> , 2011, 65, 565-568.	5.2	113
48	Auxetic behaviour from connected different-sized squares and rectangles. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2011, 467, 439-458.	2.1	90
49	On the effect of heat and solvent exposure on the microstructure properties of auxetic foams: A preliminary study. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 39-44.	1.5	26
50	Molecular networks with a near zero Poisson's ratio. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 111-116.	1.5	31
51	Modelling of hexagonal honeycombs exhibiting zero Poisson's ratio. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 52-59.	1.5	59
52	Modelling and testing of a foldable macrostructure exhibiting auxetic behaviour. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 117-122.	1.5	20
53	Adjustable and negative thermal expansion from multilayered systems. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010, 4, 133-135.	2.4	26
54	Molecular-Level Deformations in Auxetic Organic Networked Polymers. <i>ACS Symposium Series</i> , 2010, , 197-214.	0.5	1

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55	Hexagonal Honeycombs with Zero Poisson's Ratios and Enhanced Stiffness. <i>Advanced Engineering Materials</i> , 2010, 12, 855-862.	3.5	140
56	Elastic constants of 3-, 4- and 6-connected chiral and anti-chiral honeycombs subject to uniaxial in-plane loading. <i>Composites Science and Technology</i> , 2010, 70, 1042-1048.	7.8	470
57	Composites with needle-like inclusions exhibiting negative thermal expansion: A preliminary investigation. <i>Composites Science and Technology</i> , 2010, 70, 2248-2252.	7.8	26
58	On the behaviour of bi-material strips when subjected to changes in external hydrostatic pressure. <i>Scripta Materialia</i> , 2009, 60, 65-67.	5.2	13
59	A Novel Process for the Manufacture of Auxetic Foams and for Their re-Conversion to Conventional Form. <i>Advanced Engineering Materials</i> , 2009, 11, 533-535.	3.5	121
60	On rotating rigid parallelograms and their potential for exhibiting auxetic behaviour. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 2033-2044.	1.5	62
61	On the properties of auxetic rotating stretching squares. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 2045-2054.	1.5	40
62	Auxetic behaviour from stretching connected squares. <i>Journal of Materials Science</i> , 2008, 43, 5962-5971.	3.7	55
63	On the auxetic properties of rotating rhombi and parallelograms: A preliminary investigation. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 521-529.	1.5	144
64	Truss-type systems exhibiting negative compressibility. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 2405-2414.	1.5	51
65	Auxetic behaviour from rotating rhombi. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 2395-2404.	1.5	101
66	On the mechanical properties and auxetic potential of various organic networked polymers. <i>Molecular Simulation</i> , 2008, 34, 1149-1158.	2.0	22
67	On the role of rotating tetrahedra for generating auxetic behavior in NAT and related systems. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 4214-4220.	3.1	20