

Andrew Alderson

List of Publications by Year in descending order

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Version: 2024-02-01

62
papers

3,201
citations

159585

30
h-index

155660

55
g-index

64
all docs

64
docs citations

64
times ranked

1741
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Manufacturing, characteristics and applications of auxetic foams: A state-of-the-art review. Composites Part B: Engineering, 2022, 235, 109733. | 12.0 | 111 |
| 2 | Effect of Compressive Strain Rate on Auxetic Foam. Applied Sciences (Switzerland), 2021, 11, 1207. | 2.5 | 10 |
| 3 | Fabrication, characterization and analytical modeling of gradient auxetic closed cell foams. Smart Materials and Structures, 2021, 30, 035014. | 3.5 | 12 |
| 4 | Shear modulus of conventional and auxetic open-cell foam. Mechanics of Materials, 2021, 157, 103818. | 3.2 | 30 |
| 5 | Effect of steam conversion on the cellular structure, Young's modulus and negative Poisson's ratio of closed-cell foam. Smart Materials and Structures, 2021, 30, 015031. | 3.5 | 11 |
| 6 | Auxetic orthotropic materials: Numerical determination of a phenomenological spline-based stored density energy and its implementation for finite element analysis. Computer Methods in Applied Mechanics and Engineering, 2020, 371, 113300. | 6.6 | 8 |
| 7 | Auxetics and Other Systems with "Negative" Characteristics. Physica Status Solidi (B): Basic Research, 2020, 257, 2000496. | 1.5 | 10 |
| 8 | Plantar Pressure Distribution under Uniform and Gradient Foam during Running and Jumping. Proceedings (mdpi), 2020, 49, . | 0.2 | 1 |
| 9 | The use of auxetic materials in tissue engineering. Biomaterials Science, 2020, 8, 2074-2083. | 5.4 | 78 |
| 10 | Validation of a Finite Element Modeling Process for Auxetic Structures under Impact. Physica Status Solidi (B): Basic Research, 2020, 257, 1900197. | 1.5 | 34 |
| 11 | Auxetics and Other Systems of Anomalous Characteristics. Physica Status Solidi (B): Basic Research, 2019, 256, 1800736. | 1.5 | 8 |
| 12 | Effects of Heat Exposure and Volumetric Compression on Poisson's Ratios, Young's Moduli, and Polymeric Composition During Thermo-Mechanical Conversion of Auxetic Open Cell Polyurethane Foam. Physica Status Solidi (B): Basic Research, 2019, 256, 1800393. | 1.5 | 23 |
| 13 | In Vivo Measurement of Surface Pressures and Retraction Distances Applied on Abdominal Organs During Surgery. Surgical Innovation, 2018, 25, 50-56. | 0.9 | 3 |
| 14 | Controlling Density and Modulus in Auxetic Foam Fabrications" Implications for Impact and Indentation Testing. Proceedings (mdpi), 2018, 2, 250. | 0.2 | 6 |
| 15 | Review of Auxetic Materials for Sports Applications: Expanding Options in Comfort and Protection. Applied Sciences (Switzerland), 2018, 8, 941. | 2.5 | 188 |
| 16 | Application of Auxetic Foam in Sports Helmets. Applied Sciences (Switzerland), 2018, 8, 354. | 2.5 | 72 |
| 17 | The Application of Auxetic Material for Protective Sports Apparel. Proceedings (mdpi), 2018, 2, . | 0.2 | 13 |
| 18 | Fabrication, characterisation and modelling of uniform and gradient auxetic foam sheets. Acta Materialia, 2017, 126, 426-437. | 7.9 | 49 |

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|----|--|------|-----------|
| 19 | Fabrication of Auxetic Foam Sheets for Sports Applications. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1700596. | 1.5 | 46 |
| 20 | Auxetic Foam for Snow-Sport Safety Devices. , 2017, , 145-159. | | 12 |
| 21 | Large-scale extrusion of auxetic polypropylene fibre. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1279-1287. | 1.5 | 24 |
| 22 | Quasi-static characterisation and impact testing of auxetic foam for sports safety applications. <i>Smart Materials and Structures</i> , 2016, 25, 054014. | 3.5 | 54 |
| 23 | Auxetics in smart systems and structures 2015. <i>Smart Materials and Structures</i> , 2016, 25, 050301. | 3.5 | 5 |
| 24 | Modeling of negative Poisson's ratio (auxetic) crystalline cellulose I ^β . <i>Cellulose</i> , 2016, 23, 3429-3448. | 4.9 | 14 |
| 25 | A Comparison of Novel and Conventional Fabrication Methods for Auxetic Foams for Sports Safety Applications. <i>Procedia Engineering</i> , 2016, 147, 384-389. | 1.2 | 41 |
| 26 | Auxetics and other systems of "negative" characteristics. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1241-1242. | 1.5 | 12 |
| 27 | Double-Negative Mechanical Metamaterials Displaying Simultaneous Negative Stiffness and Negative Poisson's Ratio Properties. <i>Advanced Materials</i> , 2016, 28, 10323-10332. | 21.0 | 206 |
| 28 | Models for the prediction of Poisson's ratio in the "I _± " cristobalite tetrahedral framework. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 1465-1478. | 1.5 | 21 |
| 29 | Auxetic Foams for Sport Safety Applications. <i>Procedia Engineering</i> , 2015, 112, 104-109. | 1.2 | 37 |
| 30 | Auxetics and other systems of "negative" characteristics. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 1421-1425. | 1.5 | 24 |
| 31 | Auxetic Materials and Related Systems. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 263-266. | 1.5 | 26 |
| 32 | Auxetic Materials for Sports Applications. <i>Procedia Engineering</i> , 2014, 72, 453-458. | 1.2 | 241 |
| 33 | Piezomorphic Materials. <i>Macromolecular Materials and Engineering</i> , 2013, 298, 318-327. | 3.6 | 27 |
| 34 | Modelling of the structure-property relationships in the "I _± " quartz structures. <i>Proceedings of SPIE</i> , 2013, , . | 0.8 | 0 |
| 35 | Auxetics in smart systems and structures 2013. <i>Smart Materials and Structures</i> , 2013, 22, 080201. | 3.5 | 4 |
| 36 | Molecular modelling of structure and deformation mechanisms of auxetic behaviour in the "I _± " quartz structures. <i>Proceedings of SPIE</i> , 2012, , . | 0.8 | 0 |

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|----|--|-----|-----------|
| 37 | Towards auxetic nanofibres: molecular modelling of auxetic behaviour in cellulose II. , 2012, , . | | 0 |
| 38 | Modelling of the Structure-Property Relationships in Auxetic Nanotube. , 2012, , . | | 0 |
| 39 | Manufacture and characterisation of thin flat and curved auxetic foam sheets. Physica Status Solidi (B): Basic Research, 2012, 249, 1315-1321. | 1.5 | 50 |
| 40 | Auxetic warp knit textile structures. Physica Status Solidi (B): Basic Research, 2012, 249, 1322-1329. | 1.5 | 109 |
| 41 | <i>In situ</i> 3D X-ray microtomography study comparing auxetic and non-auxetic polymeric foams under tension. Physica Status Solidi (B): Basic Research, 2011, 248, 45-51. | 1.5 | 53 |
| 42 | Modelling and testing of a foldable macrostructure exhibiting auxetic behaviour. Physica Status Solidi (B): Basic Research, 2011, 248, 117-122. | 1.5 | 20 |
| 43 | Numerical and analytical modelling of multi-layer adhesive film interface systems. Physica Status Solidi (B): Basic Research, 2009, 246, 2072-2082. | 1.5 | 23 |
| 44 | Can nanotubes display auxetic behaviour?. Physica Status Solidi (B): Basic Research, 2008, 245, 2373-2382. | 1.5 | 32 |
| 45 | Natrolite: A zeolite with negative Poisson's ratios. Journal of Applied Physics, 2007, 101, 086102. | 2.5 | 107 |
| 46 | Modelling the influence of the orientation and fibre reinforcement on the Negative Poisson's ratio in composite laminates. Physica Status Solidi (B): Basic Research, 2007, 244, 883-892. | 1.5 | 52 |
| 47 | Preface: phys. stat. sol. (b) 244/3. Physica Status Solidi (B): Basic Research, 2007, 244, 813-816. | 1.5 | 26 |
| 48 | Negative Poisson's ratios in cellular foam materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 423, 214-218. | 5.6 | 109 |
| 49 | An alternative explanation for the negative Poisson's ratios in β -cristobalite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 423, 219-224. | 5.6 | 61 |
| 50 | Negative Poisson's Ratio Polyester Fibers. Textile Reseach Journal, 2006, 76, 540-546. | 2.2 | 82 |
| 51 | The sensitisation of thermal decomposition of ammonium polyphosphate by selected metal ions and their potential for improved cotton fabric flame retardancy. Polymer Degradation and Stability, 2005, 88, 114-122. | 5.8 | 108 |
| 52 | Preface: phys. stat. sol. (b) 242/3. Physica Status Solidi (B): Basic Research, 2005, 242, 497-497. | 1.5 | 43 |
| 53 | Auxetic Cellular Materials and Structures. , 2005, , 489. | | 8 |
| 54 | The Effects of Processing on the Topology and Mechanical Properties of Negative Poisson's Ratio Foams. , 2005, , 503. | | 7 |

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|----|---|-----|-----------|
| 55 | On the Auxetic Properties of 'Rotating Rectangles' with Different Connectivity. Journal of the Physical Society of Japan, 2005, 74, 2866-2867. | 1.6 | 88 |
| 56 | An Alternative Explanation for the Negative Poisson's Ratios in Auxetic Foams. Journal of the Physical Society of Japan, 2005, 74, 1341-1342. | 1.6 | 62 |
| 57 | On the origin of auxetic behaviour in the silicate β -cristobalite. Journal of Materials Chemistry, 2005, 15, 4003. | 6.7 | 62 |
| 58 | MOLECULAR MODELLING OF THE DEFORMATION MECHANISMS ACTING IN AUXETIC SILICA. Computational Methods in Science and Technology, 2004, 10, 117-126. | 0.3 | 24 |
| 59 | NEGATIVE POISSON'S RATIOS FROM ROTATING RECTANGLES. Computational Methods in Science and Technology, 2004, 10, 137-145. | 0.3 | 114 |
| 60 | Molecular Origin of Auxetic Behavior in Tetrahedral Framework Silicates. Physical Review Letters, 2002, 89, 225503. | 7.8 | 141 |
| 61 | An Auxetic Filter: A Tuneable Filter Displaying Enhanced Size Selectivity or Defouling Properties. Industrial & Engineering Chemistry Research, 2000, 39, 654-665. | 3.7 | 209 |
| 62 | Auxetic two-dimensional polymer networks. An example of tailoring geometry for specific mechanical properties. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 2671. | 1.7 | 131 |