

# Amnaya P Awasthi

## List of Publications by Year in descending order

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25  
papers

694  
citations

623574

14  
h-index

610775

24  
g-index

26  
all docs

26  
docs citations

26  
times ranked

696  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Shockwaves in Jammed Ductile Granular Media. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .   | 1.1  | 2         |
| 2  | Intrinsic hardness of covalent crystals: a unified multiparametric framework. Journal of Materials Science, 2021, 56, 11711-11722.  | 1.7  | 2         |
| 3  | Shock response of single-crystal boron carbide along orientations with the highest and lowest elastic moduli. Physical Review B, 2021, 104, .   | 1.1  | 6         |
| 4  | Intrinsic hardness of boron carbide: Influence of polymorphism and stoichiometry. Journal of the American Ceramic Society, 2020, 103, 7127-7134.  | 1.9  | 5         |
| 5  | Shocked ceramics melt: An atomistic analysis of thermodynamic behavior of boron carbide. Physical Review B, 2020, 101, .  | 1.1  | 30        |
| 6  | Deformation behavior and amorphization in icosahedral boron-rich ceramics. Progress in Materials Science, 2020, 112, 100664.  | 16.0 | 34        |
| 7  | High-pressure deformation and amorphization in boron carbide. Journal of Applied Physics, 2019, 125, .  | 1.1  | 39        |
| 8  | Propagation and dissipation of elasto-plastic stress waves in two dimensional ordered granular media. Journal of the Mechanics and Physics of Solids, 2018, 120, 117-131.                                   | 2.3  | 18        |
| 9  | Effects of interface roughness on cohesive strength of self-assembled monolayers. Applied Surface Science, 2017, 397, 192-198.  | 3.1  | 2         |
| 10 | Multi-scale model of effects of roughness on the cohesive strength of self-assembled monolayers. International Journal of Fracture, 2017, 208, 131-143.   | 1.1  | 0         |
| 11 | Evaluating boron-carbide constituents with simulated Raman spectra. Scripta Materialia, 2017, 138, 32-34.   | 2.6  | 23        |
| 12 | Nanoscale mechanical tailoring of interfaces using self-assembled monolayers. Mechanics of Materials, 2016, 98, 71-80.  | 1.7  | 6         |
| 13 | In search of amorphization-resistant boron carbide. Scripta Materialia, 2016, 123, 158-162.   | 2.6  | 64        |
| 14 | Crystallographic and spectral equivalence of boron-carbide polymorphs. Scripta Materialia, 2016, 122, 82-85.  | 2.6  | 22        |
| 15 | Impact response of granular layers. Granular Matter, 2015, 17, 21-31.   | 1.1  | 9         |
| 16 | High-amplitude elastic solitary wave propagation in 1-D granular chains with preconditioned beads: Experiments and theoretical analysis. Journal of the Mechanics and Physics of Solids, 2014, 72, 161-173. | 2.3  | 15        |
| 17 | Plane wave propagation in 2D and 3D monodisperse periodic granular media. Granular Matter, 2014, 16, 141-150.   | 1.1  | 28        |
| 18 | Family of plane solitary waves in dimer granular crystals. Physical Review E, 2014, 90, 032209.   | 0.8  | 10        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Characterization of wave propagation in elastic and elastoplastic granular chains. <i>Physical Review E</i> , 2014, 89, 012204.   | 0.8 | 38        |
| 20 | Wave propagation in 2D random granular media. <i>Physica D: Nonlinear Phenomena</i> , 2014, 266, 42-48.   | 1.3 | 14        |
| 21 | Wave propagation in elasto-plastic granular systems. <i>Granular Matter</i> , 2013, 15, 747-758.  | 1.1 | 41        |
| 22 | Wave propagation in random granular chains. <i>Physical Review E</i> , 2012, 85, 031308.  | 0.8 | 26        |
| 23 | Effects of weak disorder on stress-wave anisotropy in centered square nonlinear granular crystals. <i>Physical Review E</i> , 2012, 86, 031305.                                 | 0.8 | 22        |
| 24 | Propagation of solitary waves in 2D granular media: A numerical study. <i>Mechanics of Materials</i> , 2012, 54, 100-112.   | 1.7 | 43        |
| 25 | Modeling of graphene-polymer interfacial mechanical behavior using molecular dynamics. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009, 17, 015002. | 0.8 | 195       |