

# Nuwan Dewapriya

## List of Publications by Year in descending order

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26  
papers

744  
citations

567281

15  
h-index

677142

22  
g-index

26  
all docs

26  
docs citations

26  
times ranked

592  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomistic and continuum modelling of temperature-dependent fracture of graphene. International Journal of Fracture, 2014, 187, 199-212.	2.2	106
2	Molecular dynamics study of the reinforcement effect of graphene in multilayered polymer nanocomposites. Materials and Design, 2017, 124, 47-57.	7.0	85
3	Influence of temperature and free edges on the mechanical properties of graphene. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 065017.	2.0	76
4	Molecular Dynamics Simulations and Continuum Modeling of Temperature and Strain Rate Dependent Fracture Strength of Graphene With Vacancy Defects. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	2.2	72
5	Size dependency and potential field influence on deriving mechanical properties of carbon nanotubes using molecular dynamics. Theoretical and Applied Mechanics Letters, 2015, 5, 167-172.	2.8	49
6	Comprehensive molecular dynamics studies of the ballistic resistance of multilayer graphene-polymer composite. Computational Materials Science, 2019, 170, 109171.	3.0	40
7	Influence of hydrogen functionalization on the fracture strength of graphene and the interfacial properties of graphene-polymer nanocomposite. Carbon, 2015, 93, 830-842.	10.3	34
8	Tailoring fracture strength of graphene. Computational Materials Science, 2018, 141, 114-121.	3.0	33
9	Characterizing fracture stress of defective graphene samples using shallow and deep artificial neural networks. Carbon, 2020, 163, 425-440.	10.3	29
10	Energy absorption mechanisms of nanoscopic multilayer structures under ballistic impact loading. Computational Materials Science, 2021, 195, 110504.	3.0	29
11	Atomistic simulations of nanoscale crack-vacancy interaction in graphene. Carbon, 2017, 125, 113-131.	10.3	28
12	Molecular dynamics study of the penetration resistance of multilayer polymer/ceramic nanocomposites under supersonic projectile impacts. Extreme Mechanics Letters, 2021, 44, 101238.	4.1	23
13	Atomistic modeling of out-of-plane deformation of a propagating Griffith crack in graphene. Acta Mechanica, 2017, 228, 3063-3075.	2.1	20
14	Molecular dynamics study of the mechanical behaviour of ultrathin polymer-metal multilayers under extreme dynamic conditions. Computational Materials Science, 2020, 184, 109951.	3.0	18
15	Molecular Dynamics Simulations of Shock Propagation and Spallation in Amorphous Polymers. Journal of Applied Mechanics, Transactions ASME, 2021, 88, .	2.2	17
16	Superior Dynamic Penetration Resistance of Nanoscale Multilayer Polymer/Metal Films. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	15
17	Development of a homogenous nonlinear spring model characterizing the interfacial adhesion properties of graphene with surface defects. Composites Part B: Engineering, 2016, 98, 339-349.	12.0	14
18	Atomistic modelling of crack-inclusion interaction in graphene. Engineering Fracture Mechanics, 2018, 195, 92-103.	4.3	13

#	ARTICLE	IF	CITATIONS
19	Quantum and classical molecular dynamics simulations of shocked polyurea and polyurethane. Computational Materials Science, 2022, 203, 111166.	3.0	10
20	Molecular dynamics study on the shock induced spallation of polyethylene. Journal of Applied Physics, 2022, 131, .	2.5	9
21	Atomistic and continuum modelling of stress field at an inhomogeneity in graphene. Materials and Design, 2018, 160, 718-730.	7.0	8
22	Effects of free edges and vacancy defects on the mechanical properties of graphene. , 2014, , .		5
23	Mechanical properties of two-dimensional materials: atomistic modeling and future directions. , 2020, , 9-35.		4
24	Molecular-level investigation on the spallation of polyurea. MRS Communications, 2021, 11, 532-538.	1.8	4
25	Atomistic Modelling of Nanoindentation of Multilayered Graphene-Reinforced Nanocomposites. , 2018, , 39-70.		3
26	MD Simulation of Elastic Field at an Inhomogeneity in Graphene. , 2018, , .		0