Roberto Gomes de Aguiar Veiga

List of Publications by Year
in descending order

27 papers	550 citations	687363 13 h-index	610901 24 g-index
28 all docs	28 docs citations	28 times ranked	631 citing authors

#	Article	IF	Citations
1	Deformation of copper particles upon impact: A molecular dynamics study of cold spray. Computational Materials Science, 2020, 171, 109219.	3.0	52
2	Molecular dynamics study of the ordering of carbon in highly supersaturated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>-Fe</mml:mtext></mml:mrow></mml:math>. Physical Review B, 2010, 81, .	3.2	50
3	Monte Carlo and molecular dynamics simulations of screw dislocation locking by Cottrell atmospheres in low carbon Feâ€“C alloys. Scripta Materialia, 2015, 108, 19-22.	5.2	50
4	Comparison of atomistic and elasticity approaches for carbon diffusion near line defects in Î±-iron. Acta Materialia, 2011, 59, 6963-6974.	7.9	49
5	Effect of the stress field of an edge dislocation on carbon diffusion in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math>-iron: Coupling molecular statics and atomistic kinetic Monte Carlo. Physical Review B, 2010, 82, .	3.2	42
6	Atomistic modeling of carbon Cottrell atmospheres in bcc iron. Journal of Physics Condensed Matter, 2013, 25, 025401.	1.8	35
7	Comments on â€œAtomistic modeling of an Fe system with a small concentration of Câ€• Computational Materials Science, 2014, 82, 118-121.	3.0	35
8	Formation of carbon Cottrell atmospheres and their effect on the stress field around an edge dislocation. Scripta Materialia, 2017, 129, 16-19.	5.2	35
9	Quenching of local magnetic moment in oxygen adsorbed graphene nanoribbons. Journal of Chemical Physics, 2008, 128, 201101.	3.0	29
10	Ab initiostudy of TCNQ-doped carbon nanotubes. Physical Review B, 2006, 73, .	3.2	23
11	Adsorption of metal-phthalocyanine molecules onto the Si(111) surface passivated by<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î´</mml:mi></mml:math>doping:Ab initiocalculations. Physical Review B, 2016, 93, .	3.2	17
12	Anomalous diffusion of water molecules at grain boundaries in ice I_h. Physical Chemistry Chemical Physics, 2018, 20, 13944-13951.	2.8	15
13	Atomistic Study of the Role of Defects on Î± â†’ Ïµ Phase Transformations in Iron under Hydrostatic Compression. Metals, 2019, 9, 1040.	2.3	15
14	Atomistic study of metallurgical bonding upon the high velocity impact of fcc core-shell particles. Computational Materials Science, 2021, 186, 110045.	3.0	14
15	Structural, electronic, and magnetic properties of pristine and oxygen-adsorbed graphene nanoribbons. Applied Surface Science, 2010, 256, 5776-5782.	6.1	12
16	Self-assembly of NiTPP on Cu(111): a transition from disordered 1D wires to 2D chiral domains. Physical Chemistry Chemical Physics, 2015, 17, 18344-18352.	2.8	12
17	Crystal orientation and grain boundary effects on plastic deformation of FCC particles under high velocity impacts. Materialia, 2021, 15, 101004.	2.7	11
18	Thermal conductivity of nanocrystalline SiGe alloys using molecular dynamics simulations. Journal of Applied Physics, 2013, 114, 164310.	2.5	10

#	Article	IF	Citations
19	Elastic constants of ice Ih as described by semi-empirical water models. Journal of Chemical Physics, 2019, 150, 044503.	3.0	10
20	Local atomic environment and shear banding in metallic glasses. Computational Materials Science, 2018, 155, 129-135.	3.0	8
21	Structural changes and kinetics of shear banding in metallic glass composites. Journal of Alloys and Compounds, 2020, 819, 153046.	5.5	7
22	Modified embedded-atom method interatomic potential and interfacial thermal conductance of Si-Cu systems: A molecular dynamics study. Journal of Applied Physics, 2013, 113, .	2.5	6
23	Effect of Sodium Chloride on Internal Quasi-Liquid Layers in Ice I_h. Journal of Physical Chemistry C, 2021, 125, 18526-18535.	3.1	5
24	Stability of nanocrystalline Ni-based alloys: coupling Monte Carlo and molecular dynamics simulations. Modelling and Simulation in Materials Science and Engineering, 2017, 25, 075005.	2.0	4
25	Interaction between interstitial carbon atoms and a Â½ âŒ©1â€‰1â€‰1âŒª self-interstitial atoms loop in an iron matrix: a combined DFT, off lattice KMC and MD study. Journal of Physics Condensed Matter, 2018, 30, 335901.	1.8	2
26	Lattice Instabilities and Phase Transformations in Fe from Atomistic Simulations. Journal of Phase Equilibria and Diffusion, 2017, 38, 185-194.	1.4	1
27	Investigating the kinetics of the formation of a C Cottrell atmosphere around a screw dislocation in bcc iron: a mixed-lattice atomistic kinetic Monte-Carlo analysis. Journal of Physics Condensed Matter, 2021, 33, 065704.	1.8	1