

David E Hanson

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/882585/publications.pdf>

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6
papers

59
citations

1684188

5
h-index

2053705

5
g-index

6
all docs

6
docs citations

6
times ranked

74
citing authors

#	ARTICLE	IF	CITATIONS
1	How far can a rubber molecule stretch before breaking? <i>Ab initio</i> study of tensile elasticity and failure in single-molecule polyisoprene and polybutadiene. <i>Journal of Chemical Physics</i> , 2009, 130, 064903.	3.0	25
2	Quantum chemistry and molecular dynamics studies of the entropic elasticity of localized molecular kinks in polyisoprene chains. <i>Journal of Chemical Physics</i> , 2010, 133, 084903.	3.0	10
3	A new paradigm for the molecular basis of rubber elasticity. <i>Contemporary Physics</i> , 2015, 56, 319-337.	1.8	10
4	The entropy of the rotational conformations of (poly)isoprene molecules and its relationship to rubber elasticity and temperature increase for moderate tensile or compressive strains. <i>Journal of Chemical Physics</i> , 2013, 139, 224906.	3.0	8
5	The theoretical strength of rubber: numerical simulations of polyisoprene networks at high tensile strains evidence the role of average chain tortuosity. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013, 21, 075013.	2.0	6
6	The bond rupture force for sulfur chains calculated from quantum chemistry simulations and its relevance to the tensile strength of vulcanized rubber. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 8460-8465.	2.8	0