Nico De Koker

List of Publications by Year
in descending order

34 papers	1,415 citations	567281 15 h-index	501196 28 g-index
35 all docs	35 docs citations	35 times ranked	1341 citing authors

#	Article	IF	Citations
1	Electrical resistivity and thermal conductivity of liquid Fe alloys at high P and T , and heat flux in Earthâ€™s core. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4070-4073.	7.1	268
2	Thermodynamics of silicate liquids in the deep Earth. Earth and Planetary Science Letters, 2009, 278, 226-232.	4.4	191
3	Thermal Conductivity of MgO Periclase from Equilibrium First Principles Molecular Dynamics. Physical Review Letters, 2009, 103, 125902.	7.8	145
4	Self-consistent thermodynamic description of silicate liquids, with application to shock melting of MgO periclase and MgSiO₃perovskite. Geophysical Journal International, 2009, 178, 162-179.	2.4	130
5	Lattice thermal conductivity of lower mantle minerals and heat flux from Earthâ€™s core. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17901-17904.	7.1	103
6	Thermal conductivity of MgO periclase at high pressure: Implications for the Dâ€³ region. Earth and Planetary Science Letters, 2010, 292, 392-398.	4.4	90
7	Thermodynamics of the MgOâ€“SiO2 liquid system in Earth's lowermost mantle from first principles. Earth and Planetary Science Letters, 2013, 361, 58-63.	4.4	83
8	Mantle dynamics with pressure- and temperature-dependent thermal expansivity and conductivity. Physics of the Earth and Planetary Interiors, 2013, 217, 48-58.	1.9	76
9	Structure, thermodynamics, and diffusion in CaAl2Si2O8 liquid from first-principles molecular dynamics. Geochimica Et Cosmochimica Acta, 2010, 74, 5657-5671.	3.9	59
10	The effects of lithospheric thickness and density structure on Earth's stress field. Geophysical Journal International, 2012, 188, 1-17.	2.4	50
11	Combining accelerometer data and contextual variables to evaluate the risk of driver behaviour. Transportation Research Part F: Traffic Psychology and Behaviour, 2016, 41, 80-96.	3.7	44
12	Electrical and thermal conductivity of Al liquid at high pressures and temperatures fromab initiocomputations. Physical Review B, 2012, 85, .	3.2	37
13	20 Dwelling Large-Scale Experiment of Fire Spread in Informal Settlements. Fire Technology, 2020, 56, 1599-1620.	3.0	21
14	Saturation and negative temperature coefficient of electrical resistivity in liquid iron-sulfur alloys at high densities from first-principles calculations. Physical Review B, 2018, 97, .	3.2	18
15	Theoretical Computation of Diffusion in Minerals and Melts. Reviews in Mineralogy and Geochemistry, 2010, 72, 971-996.	4.8	17
16	Resistivity saturation in liquid ironâ€“light-element alloys at conditions of planetary cores from first principles computations. Comptes Rendus - Geoscience, 2019, 351, 154-162.	1.2	17
17	Thermodynamics, diffusion and structure of NaAlSi₂O₆liquid at mantle conditions: A first-principles molecular dynamics investigation. Journal of Geophysical Research, 2011, 116, .	3.3	13
18	Thermal conductivity of CaGeO₃perovskite at high pressure. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	11

#	Article	IF	Citations
19	Assessment of reliability-based design of stable slopes. Canadian Geotechnical Journal, 2019, 56, 495-504.	2.8	11
20	Assessment of reliability-based design for a spectrum of geotechnical design problems. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2018, 171, 147-159.	1.6	9
21	Melting of cubic boron nitride at extreme pressures. Journal of Physics Condensed Matter, 2012, 24, 055401.	1.8	6
22	Assessment of ice impact load threshold exceedance in the propulsion shaft of an ice-faring vessel via Bayesian inversion. Structural Health Monitoring, 2022, 21, 757-769.	7.5	5
23	Preconditioning wind speeds for standardised structural design. Engineering Structures, 2021, 238, 111856.	5.3	3
24	Passing in multi-lane, heterogeneous traffic: Part 2, simulation. Procedia Computer Science, 2018, 130, 773-778.	2.0	2
25	Reliability analysis of EN 1997 design approaches for eccentrically loaded footings. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2019, 172, 113-120.	1.6	2
26	Risk-optimal sampling for reliability-based design. Structural Safety, 2020, 83, 101896.	5.3	2
27	Implementation of the fire beam element method into OpenSees for the analysis of structures in fire. Advances in Structural Engineering, 2020, 23, 3239-3250.	2.4	1
28	Spectral inversion for ice-induced propeller moments from measurements on the propulsion shaft of a polar research vessel. Mechanical Systems and Signal Processing, 2022, 173, 108982.	8.0	1
29	Passing in multi-lane, heterogeneous traffic: Part 1, parameterisation. Procedia Computer Science, 2018, 130, 767-772.	2.0	0
30	Insulation Resistance Time Reference Curves for Specifying Passive Fire Protection for Modular Structures from Shipping Containers. Fire Technology, 0, , 1.	3.0	0
31	Risk-based member reliability in structural design. Journal of the South African Institution of Civil Engineering, 2018, 60, .	0.3	0
32	Site or regional design wind speeds?. Journal of Wind Engineering and Industrial Aerodynamics, 2022, 220, 104829.	3.9	0
33	Optimal multi-parameter sampling for geostructural design. Structural Safety, 2022, 96, 102194.	5.3	0
34	The value of data from construction project site meeting minutes in predicting project duration. Built Environment Project and Asset Management, 2022, ahead-of-print, .	1.6	0