

# Mohsen Dadfarnia

## List of Publications by Year in descending order

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32  
papers

2,031  
citations

430874

18  
h-index

610901

24  
g-index

33  
all docs

33  
docs citations

33  
times ranked

1042  
citing authors

#	ARTICLE	IF	CITATIONS
1	The role of hydrogen in hydrogen embrittlement fracture of lath martensitic steel. <i>Acta Materialia</i> , 2012, 60, 5182-5189.	7.9	314
2	Enumeration of the hydrogen-enhanced localized plasticity mechanism for hydrogen embrittlement in structural materials. <i>Acta Materialia</i> , 2019, 165, 734-750.	7.9	295
3	Hydrogen-enhanced-plasticity mediated decohesion for hydrogen-induced intergranular and "quasi-cleavage" fracture of lath martensitic steels. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 112, 403-430.	4.8	225
4	The effect of nanosized (Ti,Mo)C precipitates on hydrogen embrittlement of tempered lath martensitic steel. <i>Acta Materialia</i> , 2014, 74, 244-254.	7.9	208
5	Modeling hydrogen transport by dislocations. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 78, 511-525.	4.8	168
6	Recent advances on hydrogen embrittlement of structural materials. <i>International Journal of Fracture</i> , 2015, 196, 223-243.	2.2	146
7	A Lyapunov-Based Piezoelectric Controller for Flexible Cartesian Robot Manipulators. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2004, 126, 347-358.	1.6	84
8	An observer-based piezoelectric control of flexible Cartesian robot arms: theory and experiment. <i>Control Engineering Practice</i> , 2004, 12, 1041-1053.	5.5	72
9	The Relationship Between Crack-Tip Strain and Subcritical Cracking Thresholds for Steels in High-Pressure Hydrogen Gas. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 248-269.	2.2	69
10	A Fresh Insight Into the Microcantilever-Sample Interaction Problem in Non-Contact Atomic Force Microscopy. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2004, 126, 327-335.	1.6	62
11	On the theoretical modeling of fatigue crack growth. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 121, 341-362.	4.8	55
12	Assessment of resistance to fatigue crack growth of natural gas line pipe steels carrying gas mixed with hydrogen. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 10808-10822.	7.1	49
13	Interpretation of Hydrogen-induced Fracture Surface Morphologies for Lath Martensitic Steel. , 2014, 3, 1700-1705.		47
14	Lyapunov-Based Vibration Control of Translational Euler-Bernoulli Beams Using the Stabilizing Effect of Beam Damping Mechanisms. <i>JVC/Journal of Vibration and Control</i> , 2004, 10, 933-961.	2.6	44
15	Achieving a Carbon Neutral Future through Advanced Functional Materials and Technologies. <i>Bulletin of the Chemical Society of Japan</i> , 2022, 95, 73-103.	3.2	39
16	A piezoelectric driven ratchet actuator mechanism with application to automotive engine valves. <i>Mechatronics</i> , 2003, 13, 933-956.	3.3	38
17	A comparative study of the Galerkin approximation utilized in the Timoshenko beam theory. <i>Journal of Sound and Vibration</i> , 2005, 280, 1132-1142.	3.9	22
18	Interaction of Hydrogen Transport and Material Elastoplasticity in Pipeline Steels. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2009, 131, .	0.6	20

#	ARTICLE	IF	CITATIONS
19	On Modeling Hydrogen-Induced Crack Propagation Under Sustained Load. <i>Jom</i> , 2014, 66, 1390-1398.	1.9	19
20	On the small scale character of the stress and hydrogen concentration fields at the tip of an axial crack in steel pipeline: effect of hydrogen-induced softening on void growth. <i>International Journal of Materials Research</i> , 2008, 99, 557-570.	0.3	13
21	A new software tool for synthesis of linear PID controllers. <i>Advances in Engineering Software</i> , 2003, 34, 551-557.	3.8	9
22	A model for high temperature hydrogen attack in carbon steels under constrained void growth. <i>International Journal of Fracture</i> , 2019, 219, 1-17.	2.2	7
23	Hydrogen Embrittlement: Mechanisms. , 2016, , 1768-1784.		4
24	Effect of Hydrogen on Creep Properties of SUS304 Austenitic Stainless Steel. <i>Corrosion</i> , 2021, 77, 256-265.	1.1	4
25	Micromechanics of Hydrogen Transport and Embrittlement in Pipeline Steels. , 2006, , 741.		3
26	On the stress field ahead of a stationary crack tip during the transition from primary to secondary creep. <i>International Journal of Solids and Structures</i> , 2020, 193-194, 455-473.	2.7	3
27	Modeling the Hydrogen Effect on the Constitutive Response of a Low Carbon Steel in Cyclic Loading. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2021, 88, .	2.2	3
28	An Investigation of Damping Mechanisms in Translational Euler-Bernoulli Beams Using a Lyapunov-Based Stability Approach. , 2003, , .		3
29	Numerical Simulation of Hydrogen Transport at a Crack Tip in a Pipeline Steel. , 2006, , .		3
30	A Reduced-Order Observer Based Piezoelectric Control of Flexible Cartesian (SCARA) Robot Manipulator. , 2002, , 395.		2
31	Effect of hydrogen on creep properties of SUS304, SUS304L, SUS310S and SUY-1. <i>The Proceedings of the Materials and Mechanics Conference</i> , 2021, 2021, OS1704.	0.0	0
32	Effects of diffusion and primary creep on intergranular cavitation at high temperatures. <i>International Journal of Fracture</i> , 0, , .	2.2	0