

# Roy Johnsen

## List of Publications by Year in descending order

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Version: 2024-02-01

29  
papers

641  
citations

687363

13  
h-index

580821

25  
g-index

30  
all docs

30  
docs citations

30  
times ranked

517  
citing authors

#	ARTICLE	IF	CITATIONS
1	Resolving the hydrogen effect on dislocation nucleation and mobility by electrochemical nanoindentation. Scripta Materialia, 2012, 66, 414-417.	5.2	100
2	Materials and corrosion trends in offshore and subsea oil and gas production. Npj Materials Degradation, 2017, 1, .	5.8	80
3	Application of hydrogen influenced cohesive laws in the prediction of hydrogen induced stress cracking in 25%Cr duplex stainless steel. Engineering Fracture Mechanics, 2008, 75, 2333-2351.	4.3	75
4	Effect of Tungsten on the Pitting and Crevice Corrosion Resistance of Type 25Cr Super Duplex Stainless Steels. Corrosion, 2017, 73, 53-67.	1.1	41
5	Effect of nickel on hydrogen permeation in ferritic/pearlitic low alloy steels. International Journal of Hydrogen Energy, 2018, 43, 3845-3861.	7.1	39
6	Effect of hydrogen on the hardness of different phases in super duplex stainless steel. International Journal of Hydrogen Energy, 2016, 41, 704-712.	7.1	37
7	Effect of hydrogen on dislocation nucleation in alloy 718. International Journal of Hydrogen Energy, 2017, 42, 15933-15942.	7.1	36
8	Effect of different microstructural features on the hydrogen embrittlement susceptibility of alloy 718. International Journal of Hydrogen Energy, 2018, 43, 6765-6776.	7.1	28
9	Nanomechanical characterization of the hydrogen effect on pulsed plasma nitrided super duplex stainless steel. International Journal of Hydrogen Energy, 2013, 38, 15520-15531.	7.1	23
10	Crevice corrosion of solution annealed 25Cr duplex stainless steels: Effect of W on critical temperatures. Corrosion Science, 2021, 178, 109053.	6.6	23
11	Effect of hydrogen on the embrittlement susceptibility of Fe-22Mn-0.6C TWIP steel revealed by in-situ tensile tests. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 802, 140638.	5.6	22
12	Environmentally assisted degradation of spinodal copper alloy C72900. Corrosion Science, 2018, 142, 45-55.	6.6	19
13	In situ small-scale hydrogen embrittlement testing made easy: An electrolyte for preserving surface integrity at nano-scale during hydrogen charging. International Journal of Hydrogen Energy, 2018, 43, 12516-12529.	7.1	18
14	Hydrogen Effect on Nanomechanical Properties of the Nitrided Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 766-775.	2.2	13
15	Probing hydrogen effect on nanomechanical properties of X65 pipeline steel using in-situ electrochemical nanoindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 824, 141819.	5.6	11
16	Hydrogen diffusion and trapping in nickel-based alloy 625: An electrochemical permeation study. Electrochimica Acta, 2022, 421, 140477.	5.2	11
17	Hydrogen stress cracking and crack initiation in precipitation hardened Ni-alloys. Engineering Failure Analysis, 2018, 89, 74-87.	4.0	9
18	The Role of Tungsten on the Phase Transformation Kinetics and its Correlation with the Localized Corrosion Resistance of 25Cr Super Duplex Stainless Steels. Journal of the Electrochemical Society, 2020, 167, 081510.	2.9	9

#	ARTICLE	IF	CITATIONS
19	Hydrogen uptake during active CO <sub>2</sub> -H <sub>2</sub> S corrosion of carbon steel wires in simulated annulus fluid. Corrosion Science, 2022, 199, 110172.	6.6	9
20	Hydrogen assisted intergranular cracking of alloy 725: The effect of boron and copper alloying. Corrosion Science, 2022, 203, 110331.	6.6	8
21	Evaluation of the cementite morphology influence on the hydrogen induced crack nucleation and propagation path in carbon steels. International Journal of Hydrogen Energy, 2022, 47, 14121-14129.	7.1	6
22	Properties of TSA in natural seawater at ambient and elevated temperature. Materials and Corrosion - Werkstoffe Und Korrosion, 2019, 70, 293-306.	1.5	5
23	Use of the Critical Acidification Model to Estimate the Influence of W in the Localized Corrosion Resistance of 25Cr Super Duplex Stainless Steels. Metals, 2020, 10, 1364.	2.3	4
24	Effect of Nickel on the Hydrogen Stress Cracking Resistance of Ferritic/Pearlitic Low Alloy Steels. Corrosion, 2018, 74, 801-818.	1.1	3
25	Stress Corrosion Cracking in an Extruded Cu-Free Al-Zn-Mg Alloy. Metals, 2020, 10, 1194.	2.3	3
26	Corrosion and Microstructural Investigation on Additively Manufactured 316L Stainless Steel: Experimental and Statistical Approach. Materials, 2022, 15, 1605.	2.9	3
27	The Effect of Hydrogen on the Nanoindentation Behavior of Heat Treated 718 Alloy. Metals, 2020, 10, 1451.	2.3	2
28	Hydrogen uptake and diffusivity in steel armor wires with different chemical composition, carbide distribution, grain size, and degree of deformation. Materials and Corrosion - Werkstoffe Und Korrosion, 0, , .	1.5	2
29	Reveal Hydrogen Behavior at Grain Boundaries in Fe-22Mn-0.6C TWIP Steel via In Situ Micropillar Compression Test. Acta Metallurgica Sinica (English Letters), 2023, 36, 1095-1104.	2.9	2