Corrosion of Cr bearing low alloy pipeline steel in CO2 e conditions

Applied Surface Science

270, 395-404

DOI: 10.1016/j.apsusc.2013.01.036

Citation Report

#	Article	IF	Citations
1	Alloying Effect of Chromium on the Corrosion Behavior of Low-Alloy Steels. Materials Transactions, 2013, 54, 1770-1778.	0.4	19
2	In situ synchrotron X-ray diffraction study of the effect of chromium additions to the steel and solution on CO2 corrosion of pipeline steels. Corrosion Science, 2014, 80, 237-246.	3.0	51
3	On the theory of CO2 corrosion reactions â€“ Investigating their interrelation with the corrosion products and API-X100 steel microstructure. Corrosion Science, 2014, 85, 380-393.	3.0	68
4	Corrosion Assessment of Different Production Casings and Material Selection in Sour Gas Wells. , 2015, , .		1
5	Effect of O2 on corrosion of 3Cr steel in high temperature and high pressure CO2â€“O2 environment. Applied Surface Science, 2015, 329, 104-115.	3.1	57
6	Corrosion behavior of low-alloy steel with martensite/ferrite microstructure at vapor-saturated CO2 and CO2-saturated brine conditions. Applied Surface Science, 2015, 351, 610-623.	3.1	39
7	Corrosion behavior of the expandable tubular in formation water. International Journal of Minerals, Metallurgy and Materials, 2015, 22, 149-156.	2.4	13
8	Corrosion Behavior of Low-Alloy Pipeline Steel with 1% Cr Under CO2 Condition. Acta Metallurgica Sinica (English Letters), 2015, 28, 739-747.	1.5	23
9	CORROSION RESISTANCE OF Feâ€“Al/Al₂O₃ DUPLEX COATING ON PIPELINE STEEL X80 IN SIMULATED OIL AND GAS WELL ENVIRONMENT. Surface Review and Letters, 2015, 22, 1550045.	0.5	6
10	Effect of Cr content on the corrosion performance of low-Cr alloy steel in a CO2 environment. Applied Surface Science, 2016, 379, 39-46.	3.1	76
11	Effect of silty sand with different sizes on corrosion behavior of 3Cr steel in CO2 aqueous environment. Applied Surface Science, 2016, 379, 163-170.	3.1	16
12	Recommend design of filler metal to minimize carbon steel weld metal preferential corrosion in CO2-saturated oilfield produced water. Applied Surface Science, 2016, 389, 609-622.	3.1	23
13	Corrosion behaviour of low-alloy martensite steel exposed to vapour-saturated CO 2 and CO 2 -saturated brine conditions. Electrochimica Acta, 2016, 213, 842-855.	2.6	38
14	Observation and analysis of pseudopassive film on 6.5%Cr steel in CO 2 corrosion environment. Corrosion Science, 2016, 111, 711-719.	3.0	39
15	Effect of temperature on the 3Cr low-alloyed steel initial corrosion behavior in CO2 solution. Materials Chemistry and Physics, 2016, 178, 160-172.	2.0	34
16	Corrosion behavior of lowâ€alloy steel used for pipeline at vaporâ€saturated CO₂ and CO₂â€saturated brine conditions. Materials and Corrosion - Werkstoffe Und Korrosion, 2016, 67, 817-830.	0.8	10
17	Electrochemical and Molecular Dynamics Evaluation on Inhibition Performance of 2-(1-Methyl-Nonyl)-Quinoline. Journal of Dispersion Science and Technology, 2016, 37, 1140-1151.	1.3	0
18	Corrosion Behavior of Low-Alloy Pipeline Steel Exposed to H2S/CO2-Saturated Saline Solution. Journal of Materials Engineering and Performance, 2017, 26, 1010-1017.	1.2	14

#	Article	IF	Citations
19	Comparison of corrosion mechanism of low-alloy pipeline steel used for flexible pipes at vapor-saturated CO₂ and CO₂ -saturated brine conditions. Materials and Corrosion - Werkstoffe Und Korrosion, 2017, 68, 1200-1211.	0.8	5
20	Effect of free Cr content on corrosion behavior of 3Cr steels in a CO 2 environment. Applied Surface Science, 2017, 425, 32-45.	3.1	37
21	Electrochemical behavior of valve steel in a CO2/sulfurous acid solution. Electrochimica Acta, 2017, 258, 909-918.	2.6	24
22	Hydrogen assisted cracking and CO2 corrosion behaviors of low-alloy steel with high strength used for armor layer of flexible pipe. Applied Surface Science, 2018, 440, 974-991.	3.1	23
23	The Effects of Cr/Mo Micro-Alloying on the Corrosion Behavior of Carbon Steel in CO₂-Saturated (Sweet) Brine under Hydrodynamic Control. Journal of the Electrochemical Society, 2018, 165, C278-C288.	1.3	16
24	Corrosion of low alloy steel containing 0.5% chromium in supercritical CO2-saturated brine and water-saturated supercritical CO2 environments. Applied Surface Science, 2018, 440, 524-534.	3.1	40
25	EffectsÂofÂTemperatureÂonÂCorrosionÂofÂN80 and 3CrÂSteelsÂinÂthe Simulated $$hbox {CO}_{2}$$ CO 2 Auxiliary Steam Drive Environment. Arabian Journal for Science and Engineering, 2018, 43, 3845-3854.	1.7	8
26	Effect of flow rate on localized corrosion of X70 steel in supercritical CO2 environments. Corrosion Science, 2018, 136, 339-351.	3.0	55
27	Corrosion behavior and mechanism of 3Cr steel in CO2 environment with various Ca2+ concentration. Corrosion Science, 2018, 136, 210-220.	3.0	27
28	Effect of Alloying Elements on the Corrosion Behavior of Carbon Steel in CO2 Environments. Corrosion, 2018, 74, 566-576.	0.5	10
29	A review of iron carbonate (FeCO3) formation in the oil and gas industry. Corrosion Science, 2018, 142, 312-341.	3.0	126
30	Corrosion behavior of low-carbon Cr micro-alloyed steel for grounding grids in simulated acidic soil. Journal of Iron and Steel Research International, 2018, 25, 755-766.	1.4	15
31	Effect of Microstructure on the Corrosion Performance of 5% Cr Steel in a CO2 Environment. Corrosion, 2018, 74, 757-767.	0.5	6
32	Corrosion behavior and in-situ pH monitoring of a 3% chromium low alloy pipeline steel welded joint in a CO₂ environment. Materials Research Express, 2019, 6, 116573.	0.8	3
33	Mechanism and modelling of CO ₂ corrosion on downhole tools. Royal Society Open Science, 2019, 6, 181899.	1.1	4
34	Effect of tempering heat treatment on the CO2 corrosion resistance of quench-hardened Cr-Mo low-alloy steels for oil and gas applications. Corrosion Science, 2019, 154, 36-48.	3.0	33
35	Electrochemical inhomogeneities of steel in steel/copper alloy couple during galvanic corrosion in static and flowing seawater. Materials and Corrosion - Werkstoffe Und Korrosion, 2019, 70, 726-737.	0.8	8
36	Corrosion Mechanism and Applicability Assessment of N80 and 9Cr Steels in CO2 Auxiliary Steam Drive. Journal of Materials Engineering and Performance, 2019, 28, 1030-1039.	1.2	25

#	Article	IF	Citations
37	The corrosion behavior of X65 steel in CO₂/oil/water environment of gathering pipeline. Anti-Corrosion Methods and Materials, 2019, 66, 174-187.	0.6	10
38	Comparisons of corrosion behaviour for X65 and low Cr steels in high pressure CO2-saturated brine. Journal of Materials Science and Technology, 2020, 41, 21-32.	5.6	43
39	The Effect of Acetic Acid on the Localized Corrosion of 3Cr Steel in the CO2-saturated Oilfield Formation Water. International Journal of Electrochemical Science, 2020, , 8622-8637.	0.5	6
40	Characterization of 13Cr steel corrosion in simulated EOR-CCUS environment with flue gas impurities. Chemical Engineering Research and Design, 2020, 140, 124-136.	2.7	33
41	Effect of silty sand on the pre-passivation behaviour of 1Cr steel in a CO₂ aqueous environment. Corrosion Engineering Science and Technology, 2020, 55, 205-216.	0.7	10
42	High-Temperature Oxidation Behavior of Feâ€“1Crâ€“0.2Si Steel. Materials, 2020, 13, 509.	1.3	20
43	CO2 corrosion behaviors of 13Cr steel in the high-temperature steam environment. Petroleum, 2020, 6, 106-113.	1.3	9
44	Effect of Turbulent Flow on Corrosion Behavior of 6.5Cr Steel in CO2-Containing Environment. International Journal of Electrochemical Science, 0, , 21034.	0.5	1
45	The development of a mechanistic-chemometrics model with multi-degree of freedom for pitting corrosion of HP-13Cr stainless steel under extremely oilfield environments. Corrosion Science, 2021, 181, 109237.	3.0	9
46	The evolution and characterisation of the corrosion scales formed on 3Cr steel in CO2-containing conditions relevant to geothermal energy production. Corrosion Science, 2021, 183, 109342.	3.0	22
47	Study on Electrochemical Corrosion Behavior of 13Cr Steel (0Cr13Ni2P) in Saturated CO2 Solution. International Journal of Electrochemical Science, 2021, 16, 210621.	0.5	4
48	Comparison of the characteristics of corrosion scales covering 3Cr steel and X60 steel in CO2-H2S coexistence environment. Journal of Natural Gas Science and Engineering, 2020, 80, 103371.	2.1	36
49	CORROSION RATE OF STEELS DX51D AND S220GD IN DIFFERENT CORROSION ENVIRONMENT. Scientific Bulletin of Naval Academy, 2016, 19, 166-172.	0.0	2
50	Effects of charging conditions on the hydrogen related mechanical property degradation of a 3 Cr low alloyed steel. Materialpruefung/Materials Testing, 2017, 59, 233-238.	0.8	1
51	Corrosion behavior of Cr-bearing steels in CO₂-O₂-H₂O multi-thermal-fluid environment. Materials Research Express, 2020, 7, 106518.	0.8	4
52	Damage analysis of rotation speed on corrosion film of 3Cr steel in the CO2 environment with silty sand. Engineering Failure Analysis, 2022, 133, 105995.	1.8	4
53	Formation and Evolution of the Corrosion Scales on Super 13Cr Stainless Steel in a Formate Completion Fluid With Aggressive Substances. Frontiers in Materials, 2022, 8, .	1.2	0
54	Corrosion Behavior of Oxide Scale of 5Cr Steel in CO₂ Flooding Environment. ISIJ International, 2022, , .	0.6	1

#	Article	IF	Citations
55	Surface analyses of low carbon steel and stainless steel in geothermal synthetic Na-Ca-Cl brine saturated with CO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e2687" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>. Results in Surfaces and Interfaces, 2022, , 100040.	1.0	0
56	A Case Study Showcasing the Use of Extreme Learning Machine Based on in-line Inspection Data. , 2022, , .		1
57	Effects of silty sand and pH on the formation of corrosion film and corrosion behaviour of low-Cr steel in the CO₂ environment. Corrosion Engineering Science and Technology, 2022, 57, 431-441.	0.7	0
58	Comparison of 3%-Cr steel and carbon steel corrosion behavior as well tubing materials in CO₂â€“H₂S environment. Journal of Adhesion Science and Technology, 2023, 37, 2871-2884.	1.4	1
59	The role of Cr content on the corrosion resistance of carbon steel and low-Cr steels in the CO2-saturated brine. Petroleum Science, 2023, 20, 1155-1168.	2.4	6
60	Alloy design employing Ni and Mo low alloying for 3Cr steel with enhanced corrosion resistance in CO2 environments. Journal of Materials Research and Technology, 2023, 24, 1304-1321.	2.6	10