Rishi Pillai

List of Publications by Year
in descending order

40	709	471509 17	580821 25
papers	citations	h-index	g-index

42	42	42	418
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Overview on Recent Developments of Bondcoats for Plasma-Sprayed Thermal Barrier Coatings. Journal of Thermal Spray Technology, 2017, 26, 1743-1757.	3.1	52
2	Modeling carbide dissolution in alloy 602 CA during high temperature oxidation. Corrosion Science, 2015, 96, 32-41.	6.6	51
3	A new computational approach for modelling the microstructural evolution and residual lifetime assessment of MCrAlY coatings. Materials at High Temperatures, 2015, 32, 57-67.	1.0	46
4	Modelling compositional changes in nickel base alloy 602 CA during high temperature oxidation. Materials at High Temperatures, 2015, 32, 102-112.	1.0	41
5	Effect of alloying elements in Ni-base substrate material on interdiffusion processes in MCrAlY-coated systems. Surface and Coatings Technology, 2018, 350, 359-368.	4.8	41
6	Evolution of carbides and chromium depletion profiles during oxidation of Alloy 602 CA. Corrosion Science, 2013, 75, 28-37.	6.6	39
7	High temperature air oxidation behavior of Hastelloy X processed by Electron Beam Melting (EBM) and Selective Laser Melting (SLM). Corrosion Science, 2020, 171, 108647.	6.6	39
8	Predicting Oxidation-Limited Lifetime of Thin-Walled Components of NiCrW Alloy 230. Oxidation of Metals, 2017, 87, 11-38.	2.1	33
9	Predicting the depletion of chromium in two high temperature Ni alloys. Corrosion Science, 2013, 69, 181-190.	6.6	28
10	Effect of Pressure and Thermal Cycling on Long-Term Oxidation in CO2 and Supercritical CO2. Oxidation of Metals, 2020, 94, 505-526.	2.1	26
11	Modeling Interdiffusion Processes in CMSX-10/Ni Diffusion Couple. Journal of Phase Equilibria and Diffusion, 2016, 37, 201-211.	1.4	23
12	Effect of substrate alloy composition on the oxidation behaviour and degradation of aluminide coatings on two Ni base superalloys. Corrosion Science, 2020, 167, 108494.	6.6	23
13	Effect of gas flow rate on oxidation behaviour of alloy 625 in wet air in the temperature range 900â€“1000â€‰Â°C. Materials and Corrosion - Werkstoffe Und Korrosion, 2017, 68, 159-170.	1.5	22
14	First steps toward predicting corrosion behavior of structural materials in molten salts. Journal of Nuclear Materials, 2021, 546, 152755.	2.7	22
15	External Î±-Al 2 O 3 scale on Ni-base alloy 602 CA. â€“ Part I: Formation and long-term stability. Corrosion Science, 2017, 124, 138-149.	6.6	20
16	Modeling in High Temperature Corrosion: A Review and Outlook. Oxidation of Metals, 2021, 96, 385-436.	2.1	20
17	Carbides in an aluminised single crystal superalloy: Tracing the source of carbon. Surface and Coatings Technology, 2016, 288, 15-24.	4.8	17
18	External Î±-Al2O3 scale on Ni-base alloy 602 CA â€“ Part II: Microstructural evolution. Corrosion Science, 2017, 127, 27-38.	6.6	17

#	Article	IF	Citations
19	Methods to increase computational efficiency of CALPHAD-based thermodynamic and kinetic models employed in describing high temperature material degradation. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2016, 53, 62-71.	1.6	16
20	Microstructural evolution of an aluminide coating on alloy 625 during wet air exposure at 900â€Â°C and 1000â€Â°C. Surface and Coatings Technology, 2018, 354, 268-280.	4.8	13
21	Simulating the effect of aluminizing on a CoNiCrAlY-coated Ni-base superalloy. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2019, 65, 340-345.	1.6	13
22	Predicting the microstructural evolution in a multi-layered corrosion resistant coating on a Ni-base superalloy. Materials at High Temperatures, 2018, 35, 78-88.	1.0	11
23	Oxidation Behavior of Candidate NiCr Alloys for Engine Exhaust Valves: Part Iâ€"Effect of Minor Alloying Elements. Oxidation of Metals, 2021, 95, 157-187.	2.1	11
24	Predicting Effect of Base Alloy Composition on Oxidation- and Interdiffusion-Induced Degradation of an MCrAlY Coating. Jom, 2018, 70, 1520-1526.	1.9	9
25	Diesel Burner for Particle Filter Regeneration at Mobile Machinery. MTZ Worldwide, 2013, 74, 18-22.	0.1	8
26	Effect of Water Vapor on Lifetime of 625 and 120 Foils During Oxidation Between 650 and 800 Â°C. Oxidation of Metals, 2021, 96, 589-612.	2.1	8
27	Comparison of Na2SO4, K2SO4 and Na2SO4-K2SO4 deposit induced hot corrosion of a Î²-NiAl coating. Corrosion Science, 2022, 198, 110146.	6.6	7
28	Role of Temperature in Na₂SO₄â€"K₂SO₄ Deposit Induced Type II Hot Corrosion of NiAl Coating on a Commercial Niâ€Based Superalloy. Advanced Engineering Materials, 2020, 22, 1901244.	3.5	6
29	Data analytics approach to predict high-temperature cyclic oxidation kinetics of NiCr-based Alloys. Npj Materials Degradation, 2021, 5, .	5.8	6
30	High Temperature Oxidation Lifetime Modeling of Thin-Walled Components. , 2019, , .		6
31	Measuring oxygen solubility in Ni grains and boundaries after oxidation using atom probe tomography. Scripta Materialia, 2022, 210, 114411.	5.2	6
32	Lessons Learned in Employing Data Analytics to Predict Oxidation Kinetics and Spallation Behavior of High-Temperature NiCr-Based Alloys. Oxidation of Metals, 2022, 97, 51-76.	2.1	5
33	Evaluating the efficacy of aluminide coatings to improve oxidation resistance of high performance engine valve alloys. Surface and Coatings Technology, 2021, 421, 127401.	4.8	5
34	Stability of External Î±-Al2O3 Scales on Alloy 602 CA at 1100â€"1200ÂÂ°C. Oxidation of Metals, 2018, 90, 119-133.	2.1	4
35	Computational Methods to Accelerate Development of Corrosion Resistant Coatings for Industrial Gas Turbines. Minerals, Metals and Materials Series, 2020, , 824-833.	0.4	4
36	Isothermal and Cyclic Oxidation of Haynes 282 Processed by Electron Beam Melting (EBM) and Laser Powder Bed Fusion (LPBF) in Dry Air at 800 and $$950~^{circ }hbox {C}$$. Jom, 2022, 74, 1-12.	1.9	4

#	Article	IF	Citations
37	The Role of Oxidation Resistance in High Temperature Alloy Selection for a Future with Green Hydrogen. Jom, 2021, 73, 3988-3997.	1.9	3
38	Phase Transformations in Co-Ni-Cr-W Alloys During High Temperature Exposure to Steam Environment. Journal of Phase Equilibria and Diffusion, 2018, 39, 387-400.	1.4	2
39	MICROSCALE COMBINED HEAT AND POWER SYSTEM FOR LIQUID FUELS. International Journal of Energy for A Clean Environment, 2010, 11, 163-176.	1.1	0
40	Quantifying adherence of oxide scales on steels exposed to high temperature and pressure steam. Materials and Corrosion - Werkstoffe Und Korrosion, 2021, 72, 1315-1327.	1.5	0