

Patrice Berthod

List of Publications by Year in descending order

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80
papers

448
citations

840776

11
h-index

940533

16
g-index

80
all docs

80
docs citations

80
times ranked

221
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Temperature Extreme Alloys. , 2022, , 311-322.		1
2	Influence of Ti and Co/Ni Ratio on the Oxidation at 1200Â°C of Chromium-Containing {Ni, Co}-Based Cast Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 277.	2.2	1
3	Kinetic and Metallography Study of the Oxidation at 1250 Â°C of {Co+Ni}-Based Superalloys Containing Ti to Form MC Carbides. Metals, 2022, 12, 10.	2.3	5
4	Creep and Oxidation Behaviors of 25 wt.% Crâ€“Containing Nickel-Based Alloys Reinforced by ZrC Carbides. Crystals, 2022, 12, 416.	2.2	0
5	Oxidation and Microstructural Behaviors at 1200 Â°C of 32.5 wt.% Crâ€“Containing Coâ€“Based Alloys Strengthened by HfC Carbides. Crystals, 2022, 12, 361.	2.2	1
6	As-Cast Microstructures of High Entropy Alloys Designed to Be TaC-Strengthened. Journal of Metallic Material Research, 2022, 5, .	0.6	5
7	Effects of Ni Additions on the High Temperature Expansion, Melting and Oxidation Behaviors of Cobalt-Based Superalloys. Crystals, 2021, 11, 173.	2.2	6
8	Oxidation and Microstructural Behaviors of Ni-Based Alloys Strengthened by (Ta, Hf)C Carbides at 1250 Â°C in Air. Crystals, 2021, 11, 159.	2.2	1
9	Oxidation Behavior of the Skutterudite Material Yb0.2Co4Sb12. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 3996-4002.	2.2	2
10	Consequences of partial {Hf by Ta}â€“Substitution on the high temperature properties of a HfCâ€“Reinforced Ni-based superalloy. Materials Chemistry and Physics, 2021, 271, 124949.	4.0	5
11	Addition of Co in Ni(Cr)-based cast superalloys for tantalum carbide stabilisation: consequences on the behaviour in oxidation at elevated temperatures. Canadian Metallurgical Quarterly, 2021, 60, 172-182.	1.2	0
12	Improvement of the high temperature oxidation of TaC-strengthened Co(Cr)-based cast superalloys by the addition of nickel. Corrosion Engineering Science and Technology, 2020, 55, 118-126.	1.4	3
13	Oxide scale spallation behaviour of cast chromia-forming TaC-strengthened superalloys. Materials Science and Technology, 2020, 36, 1587-1602.	1.6	3
14	A study of the dependence on the Co and Ni proportions of the oxidation at elevated temperature of TaC-strengthened {Ni and Co}-based cast superalloys. Materials Chemistry and Physics, 2020, 251, 123088.	4.0	4
15	Oxidation Behavior and Structure Stability at 1250 Â°C of Chromium-Rich TaC-Containing Cast Alloys Based on Nickel and Cobalt. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 4168-4185.	2.2	3
16	Surface degradation of three Cr-containing cobalt-based alloys exposed to pure water vapour at 900Â°C. Corrosion Engineering Science and Technology, 2020, 55, 441-452.	1.4	1
17	Thermodynamic and experimental study of cobalt-based alloys designed to contain TiC carbides. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2019, 65, 34-41.	1.6	5
18	Dependence of titanium carbide stability at elevated temperatures on Co content in Co(Ni)-25Cr-1.6Ti-0.4C superalloys. Materials Chemistry and Physics, 2018, 212, 260-267.	4.0	4

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19	Influence of Co Content on the High-Temperature Oxidation Performance of (Ni,Co)-25Cr-0.4C-6Ta Cast Alloys. <i>Oxidation of Metals</i> , 2018, 90, 187-202.	2.1	3
20	Dependence on the Chromium Content of the High-Temperature Oxidation Behavior of Ta-Rich Nickel-Based Cast Alloys. <i>Oxidation of Metals</i> , 2018, 90, 135-151.	2.1	3
21	Influences of the Co content and of the level of high temperature on the microstructure and oxidation of cast {Ni, Co}-based Cr-rich TaC-containing cast alloys. <i>Journal of Alloys and Compounds</i> , 2018, 739, 447-456.	5.5	8
22	Behavior in oxidation at elevated temperature of {25Cr, 0.4C-6Ta}-containing Ni and Co-based cast alloys versus their proportion in nickel and cobalt. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2018, 69, 703-713.	1.5	3
23	Microstructures and Surface Stabilities of {Ni-0.4C-6Ta-xCr, 0-50 wt% Pt} Cast Alloys at High Temperature. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 2311-2323.	2.2	0
24	Experimental and thermodynamic study of the influence of the base elements on the carbides natures in {Ni,Co}-based {25Cr, 0.4C, 6Ta}-containing alloys. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2018, 60, 156-162.	1.6	2
25	Effect of the Ni/Co Ratio on the High-Temperature Oxidation Behavior of {Ni&Co}-Based {25Cr-0.4C-1.6Ti, wt%}-Containing Cast Alloys. <i>Oxidation of Metals</i> , 2018, 89, 551-563.	2.1	0
26	Effect of NbC Addition on the High-Temperature Oxidation Resistance of Co- and Ni-Based Chromium-Rich Alloys. <i>Oxidation of Metals</i> , 2018, 89, 339-355.	2.1	5
27	Experimental and thermodynamic investigations regarding the effect of chromium on the carbides population in cast {Ni(bal.)-0.4C-6Ta-xCr} alloys with x varying from 0 to 50 wt%. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2018, 62, 30-41.	1.6	3
28	Thermodynamic and experimental study of 30 wt% Cr-containing {Co, Fe or Ni}-based alloys with very high contents in Ta and C. <i>Canadian Metallurgical Quarterly</i> , 2017, 56, 113-122.	1.2	2
29	Oxidation and creep properties at 1200 °C of cast quaternary Ni-Cr-C-Ti alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 699, 145-155.	5.6	5
30	Experimental and thermodynamic study of the role of titanium in the microstructural and thermal properties of cast Ni-Cr-C-Ti alloys. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2017, 56, 41-48.	1.6	7
31	Looking for New Polycrystalline MC-Reinforced Cobalt-Based Superalloys Candidate to Applications at 1200 °C. <i>Advances in Materials Science and Engineering</i> , 2017, 2017, 1-9.	1.8	11
32	New polycrystalline MC-reinforced nickel-based superalloys for use at elevated temperatures (T > T _j ETQq0 0 0 rBT /Overlock 10 Tf 0.6)	0.6	6
33	Creep and oxidation kinetics at 1100 °C of nickel-base alloys reinforced by hafnium carbides. <i>Materials and Design</i> , 2016, 104, 27-36.	7.0	31
34	Microstructures of binary Cr-xNi alloys (0 ≤ Ni ≤ 50 wt.%) in their as-cast state and after high temperature exposure. <i>Materials at High Temperatures</i> , 2016, 33, 189-197.	1.0	7
35	Oxidation behaviour at 1100 °C in air of 25 wt% Cr-containing cobalt-based alloys containing high quantities of hafnium carbides. <i>Canadian Metallurgical Quarterly</i> , 2016, 55, 409-419.	1.2	4
36	Influence of Titanium on the High Temperature Oxidation and Chromia Volatilization of Ternary Ni-Cr-C Alloys. <i>Oxidation of Metals</i> , 2016, 86, 581-595.	2.1	4

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37	Oxide Spallation During Post-isothermal High Temperature Oxidation Cooling of Cr-rich Cast Alloys Highly Alloyed with Hf. <i>Open Materials Science Journal</i> , 2016, 10, 89-100.	0.2	5
38	Oxidation behavior of chromium-rich Fe-based alloys containing HfC carbides at 1100°C. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2015, 66, 1101-1110.	1.5	1
39	Microstructure and oxidation behaviour at 1100°C of HfC containing Cr rich iron based cast alloys. <i>Materials Science and Technology</i> , 2015, 31, 1764-1772.	1.6	1
40	Kinetic and metallographic study of oxidation at high temperature of cast Ni 25Cr alloy in water vapour rich air. <i>Materials at High Temperatures</i> , 2015, 32, 530-538.	1.0	3
41	Use of thermogravimetry and thermodynamic calculations for specifying chromium diffusion occurring in alloys containing chromium carbides during high temperature oxidation. <i>Materials Chemistry and Physics</i> , 2015, 165, 79-86.	4.0	2
42	Microstructure evolution at high temperature of chromium-rich iron-based alloys containing hafnium carbides. <i>International Journal of Materials Research</i> , 2014, 105, 717-724.	0.3	6
43	Microstructure evolution in bulk and surface states of chromium rich nickel based cast alloys reinforced by hafnium carbides after exposure to high temperature air. <i>Materials at High Temperatures</i> , 2014, 31, 266-273.	1.0	13
44	Kinetics of high temperature oxidation of chromium rich HfC reinforced cobalt based alloys. <i>Corrosion Engineering Science and Technology</i> , 2014, 49, 45-54.	1.4	8
45	As-cast microstructures and behavior at high temperature of chromium-rich cobalt-based alloys containing hafnium carbides. <i>Materials Chemistry and Physics</i> , 2014, 143, 1139-1148.	4.0	19
46	Kinetics of High Temperature Oxidation and Chromia Volatilization for HfC-Containing Nickel-Based Alloys. <i>Oxidation of Metals</i> , 2014, 81, 393-405.	2.1	12
47	High Temperature Oxidation of HfC-Containing Chromium-Rich Iron-Based Alloys. <i>Oxidation of Metals</i> , 2014, 82, 33-48.	2.1	4
48	Influence of Water Vapour on the Rate of Oxidation of a Ni-25wt.%Cr Alloy at High Temperature. <i>Oxidation of Metals</i> , 2013, 79, 517-527.	2.1	21
49	Experimental and thermodynamic study of nickel (30 wt.%Cr) based alloys containing between 2.5 and 5.0 wt.% carbon. <i>International Journal of Materials Research</i> , 2012, 103, 1302-1311.	0.3	1
50	Experimental and Thermodynamic Exploration of the High-Temperature Microstructures of Co-30wt.% Cr- (2.5-5.0wt.%) C Alloys. <i>Journal of Phase Equilibria and Diffusion</i> , 2012, 33, 29-39.	1.4	1
51	Thermal Expansion Behaviour of Ternary Nickel-Based, Cobalt-Based, and Iron-Based Alloys Containing Very High Fractions of Carbides. <i>ISRN Metallurgy</i> , 2012, 2012, 1-9.	0.7	10
52	Avoiding or Promoting Graphite in Carbon-Rich Chromium-Containing CoNiFe Cast Alloys Part 1: Preliminary Thermodynamic Exploration. <i>ISRN Thermodynamics</i> , 2012, 2012, 1-7.	0.6	1
53	Protection of cobalt-based refractory alloys by chromium deposition on surface. <i>Surface and Coatings Technology</i> , 2011, 205, 5241-5247.	4.8	4
54	Protection of cobalt-based refractory alloys by chromium deposition on surface. <i>Surface and Coatings Technology</i> , 2011, 205, 3708-3715.	4.8	8

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55	Microstructures et duretés d'alliages ternaires de type M-30% Cr-0 and#224; 5%C contenant une quantité croissante de carbures de chrome. partie 3 : alliages and#224; base de cobalt. Annales De Chimie: Science Des Materiaux, 2011, 36, 193-204.	0.4	2
56	Microstructures et duretés d'alliages ternaires de type M-30%CR-0 Å 5%C contenant une quantité croissante de carbures de chrome. partie 2 : alliages Å base de fer. Annales De Chimie: Science Des Materiaux, 2011, 36, 27-36.	0.4	3
57	Influence of the morphologic evolution of the eutectic carbides at high temperature on the thermal expansion behavior of refractory cast alloys. Journal of Alloys and Compounds, 2010, 504, 243-250.	5.5	12
58	Microstructures et duretés d'alliages ternaires de type m-30%cr-0 a 5%c contenant une quantité croissante de carbures de chrome. partie 1 : alliages Å base de nickel. Annales De Chimie: Science Des Materiaux, 2010, 35, 291-301.	0.4	3
59	Corrosion of some selected ceramic alloys used in fixed partial dentures and their postsolder joints in a synthetic neutral saliva. European Journal of Oral Sciences, 2009, 117, 76-85.	1.5	3
60	High-temperature microstructures of ternary Co-30wt.% Cr-based alloys over the [0Å€“2.0wt.%] carbon range. Journal of Alloys and Compounds, 2009, 467, 227-234.	5.5	12
61	High temperature properties of several chromium-containing Co-based alloys reinforced by different types of MC carbides (M=Ta, Nb, Hf and/or Zr). Journal of Alloys and Compounds, 2009, 481, 746-754.	5.5	41
62	Thermogravimetric Study of Oxide Spallation for Chromium-Rich Cast Cobalt-Based and Iron-Based Alloys Oxidized at High Temperature. The Open Corrosion Journal, 2009, 2, 61-70.	3.0	13
63	Effect of a Preliminary Aging Treatment on the Oxidation Kinetic at High Temperature for a Cobalt - Based Alloy Strengthened by Tantalum Carbides. The Open Corrosion Journal, 2009, 2, 150-156.	3.0	4
64	Influence des carbures de chrome sur le comportement thermodynamique d'alliages ternaires base nickel, base cobalt et base fer Å haute teneur en carbone. Annales De Chimie: Science Des Materiaux, 2009, 34, 61-76.	0.4	1
65	Oxydation Å haute temperature d'alliages base cobalt de fonderie renforcés par differents types de carbures MC (M = Ta, Nb, Hf ou Zr). Annales De Chimie: Science Des Materiaux, 2009, 34, 275-287.	0.4	1
66	Influence of carbides and of the dendritic orientation on the thermal expansion of Ni-base, Co-base and Fe-base simple cast alloys. International Journal of Materials Research, 2008, 99, 265-272.	0.3	12
67	Microstructures at high temperature of Fe-30 wt.% Cr-xC Alloys with x varying from 0 to 2 wt.%. International Journal of Materials Research, 2008, 99, 964-972.	0.3	2
68	Influence de l'élément de base et de la densité des carbures sur l'oxydation Å haute température d'alliages M-30Cr-xC (M = Co, Ni, Fe). partie I : constantes cinétiques parabolique et de volatilisation de Cr₂O₃. Annales De Chimie: Science Des Materiaux, 2008, 33, 225-245.	0.4	3
69	Influence de l'élément de base et de la densité des carbures sur l'oxydation Å haute température d'alliages M-30Cr-xC (M = Co, Ni, Fe). partie II : caractérisation de la microstructure sub-corticale. Annales De Chimie: Science Des Materiaux, 2008, 33, 247-265.	0.4	4
70	Influence de l'orientation dendritique sur la cinétique d'oxydation Å haute température d'alliages de nickel contenant des carbures. Annales De Chimie: Science Des Materiaux, 2008, 33, 59-80.	0.4	1
71	Electrochemical Study of Chromium Corrosion in Na[₂ OÅ€“xSiO[₂] Melts. Journal of the Electrochemical Society, 2007, 154, C500.	2.9	15
72	Influence of Chromium Carbides on the High Temperature Oxidation Behavior and on Chromium Diffusion in Nickel-Base Alloys. Oxidation of Metals, 2007, 68, 77-96.	2.1	14

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73	Influence of the Microstructural Texture of Cast Superalloys on their High-Temperature Oxidation Behaviour. Materials Science Forum, 2004, 461-464, 1173-1180.	0.3	5
74	State of the Sub-Surface Microstructure of Carbides Strengthened Cast Superalloys after High Temperature Oxidation – Use of Thermodynamic Modelling for a Better Understanding. Materials Science Forum, 2004, 461-464, 1117-1124.	0.3	6
75	Study of the Behavior in Oxidation at High Temperature of Ni, Co and Fe-Base Alloys Containing Very High Fractions of Carbides. Materials Science Forum, 0, 595-598, 871-880.	0.3	7
76	Influence of Tantalum on the Rates of High Temperature Oxidation and Chromia Volatilization for Cast (Fe and/or Ni)-30Cr-0.4C Alloys. Materials Science Forum, 0, 595-598, 861-870.	0.3	6
77	Determination of Diffusion Coefficients Using Thermogravimetric Measurements during High Temperature Oxidation. Defect and Diffusion Forum, 0, 323-325, 289-294.	0.4	1
78	Carbides and Carbon Control in MC – Reinforced Superalloys. Asian Journal of Chemical Sciences, 0, , 64-74.	0.4	2
79	Behaviour in oxidation at 1200°C of two nickel-based alloys reinforced by (Ta, Hf)C carbides. Canadian Metallurgical Quarterly, 0, , 1-13.	1.2	1
80	Oxidation at 1250°C of {Cr, Ta}-rich carbides-strengthened {Ni, Co}-based alloys. Materials and Corrosion - Werkstoffe Und Korrosion, 0, , .	1.5	0