Fernando Pedraza

List of Publications by Year in descending order

132 papers	2,627 citations	172386 29 h-index	265120 42 g-index
132 all docs	132 docs citations	132 times ranked	2029 citing authors

#	Article	IF	Citations
1	Refurbishment. , 2022, , 259-281.		1
2	Development of Thermal Barrier Coating Systems from Al Microparticlesâ€"Part II: Characterisation of Mechanical and Thermal Transport Properties. Coatings, 2022, 12, 106.	1.2	1
3	Synthesis of self-regenerating NiAl-Al2O3 composite coatings. Materials Chemistry and Physics, 2022, 279, 125647.	2.0	2
4	Very high cycle fatigue durability of an additively manufactured single-crystal Ni-based superalloy. Additive Manufacturing, 2022, 54, 102759.	1.7	6
5	Sol-Gel-Based Multifunctional Superhydrophobic Coatings and Its Tribological Properties. Advances in Chemical and Materials Engineering Book Series, 2022, , 270-300.	0.2	0
6	Synthesis of self-healing NiAl-Al2O3 composite coatings by electrochemical way. Surface and Coatings Technology, 2022, 441, 128579.	2.2	2
7	Corrosion behavior of T24, T92, VM12, and AISI 304 steels exposed to KClâ€"NaClâ€"K₂SO₄â€"Na₂SO₄ salt mixtures. Materials and Corrosion - Werkstoffe Und Korrosion, 2021, 72, 936-950.	0.8	5
8	Analysis of thermo-physical properties of NiCr HVOF coatings on T24, T92, VM12 and AISI 304 steels. Surface and Coatings Technology, 2021, 416, 127163.	2.2	3
9	Oxidation behaviour of ultrafast slurry aluminized nickel. Surface and Coatings Technology, 2021, 424, 127667.	2.2	8
10	Corrosion properties of ceria-based coating electrodeposited from alkaline bath on electrogalvanized steel. Journal of Applied Electrochemistry, 2021, 51, 567-580.	1.5	3
11	Thermal insulation of CMAS (Calcium-Magnesium-Alumino-Silicates)- attacked plasma-sprayed thermal barrier coatings. Journal of the European Ceramic Society, 2020, 40, 2042-2049.	2.8	19
12	Solid state interfacial reactions in a ceria-coated Ni-based superalloy. Surface and Coatings Technology, 2020, 383, 125202.	2.2	3
13	High Temperature Oxidation of Slurry Aluminized Deformable Austempered Ductile Iron (DADI). Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 920-926.	1.1	3
14	Thermal Insulation of YSZ and Erbia-Doped Yttria-Stabilised Zirconia EB-PVD Thermal Barrier Coating Systems after CMAS Attack. Materials, 2020, 13, 4382.	1.3	18
15	Intermetallic formation of Al-Fe and Al-Ni phases by ultrafast slurry aluminization (flash aluminizing). Surface and Coatings Technology, 2020, 397, 126011.	2.2	12
16	Phase stability and thermal insulation of YSZ and erbia-yttria co-doped zirconia EB-PVD thermal barrier coating systems. Surface and Coatings Technology, 2020, 389, 125566.	2.2	31
17	Effect of the temperature of cerium nitrateâ€"NaCl solution on corrosion inhibition of mild steel. Materials and Corrosion - Werkstoffe Und Korrosion, 2020, 71, 1300-1309.	0.8	13
18	Microstructural characterization of NiAlâ€"Al2O3 composite materials obtained by in situ aluminothermic reduction of NiO for potential coating applications. Materials Chemistry and Physics, 2020, 251, 123124.	2.0	8

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19	Fireside corrosion on T24 steel pipes and HVOF NiCr coatings exposed to different salt mixtures. Corrosion Science, 2020, 173, 108747.	3.0	19
20	Critical Hafnium Content for Extended Lifetime of AM1 Single Crystal Superalloy. Minerals, Metals and Materials Series, 2020, , 781-788.	0.3	4
21	Effect of the pH of the electrolyte on the formation and on the corrosion properties of ceria based coating on carbon steel. Materials and Corrosion - Werkstoffe Und Korrosion, 2019, 70, 110-119.	0.8	12
22	Development of thermal barrier coating systems from Al microparticles. Part I: Influence of processing conditions on the mechanisms of formation. Surface and Coatings Technology, 2019, 380, 125085.	2.2	6
23	Development of a new slurry coating design for the surface protection of gas turbine components. Surface and Coatings Technology, 2019, 374, 521-530.	2.2	11
24	Correlations between the kinetics and the mechanisms of hot corrosion of pure nickel at 700â€‰Â°C. Corrosion Science, 2019, 155, 134-145.	3.0	16
25	Effects of polyethylene glycol (PEG) on the corrosion inhibition of mild steel by cerium nitrate in chloride solution. Applied Surface Science, 2019, 473, 449-460.	3.1	63
26	Dissolution and passivation of aluminide coatings on model and Ni-based superalloy. Surface and Coatings Technology, 2019, 357, 1037-1047.	2.2	18
27	Mechanisms of formation of slurry aluminide coatings from Al and Cr microparticles. Surface and Coatings Technology, 2019, 359, 323-333.	2.2	15
28	Evolution of thermal insulation of plasma-sprayed thermal barrier coating systems with exposure to high temperature. Journal of the European Ceramic Society, 2019, 39, 2111-2121.	2.8	24
29	Characterisation of aluminium diffusion coatings elaborated on austenitic stainless steels and on ferritic-martensitic steels. Surface and Coatings Technology, 2018, 339, 27-36.	2.2	26
30	Steam oxidation of aluminide coatings under high pressure and for long exposures. Corrosion Science, 2018, 144, 328-338.	3.0	30
31	Characterization and oxidation resistance of additive manufactured and forged IN718 Ni-based superalloys. Corrosion Science, 2018, 142, 266-276.	3.0	71
32	Mechanisms of hot corrosion of pure nickel at 700Â°C: Influence of testing conditions. Corrosion Science, 2018, 141, 211-220.	3.0	31
33	Behavior of Slurry Aluminized Austenitic Stainless Steels under Steam at 650 and 700ÂÂ°C. Oxidation of Metals, 2017, 87, 443-454.	1.0	15
34	Synthesis of zinc oxide nanorods from chemical bath deposition at different pH solutions and impact on their surface properties. Journal of Alloys and Compounds, 2017, 704, 788-794.	2.8	22
35	Thermal Transport Properties of New Coatings on Steels for Supercritical Steam Power Plants. Oxidation of Metals, 2017, 88, 191-202.	1.0	6
36	Steam Oxidation Resistance of Slurry Aluminum and Aluminum/Silicon Coatings on Steel for Ultrasupercritical Steam Turbines. Oxidation of Metals, 2017, 87, 469-479.	1.0	17

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37	Reactivity of Al-Cr microparticles for aluminizing purposes. Intermetallics, 2017, 81, 80-89.	1.8	5
38	Evaluation of the Compatibility of Aluminide Coatings in High-Temperature Sodium for Fast Reactor Application. Oxidation of Metals, 2017, 88, 221-233.	1.0	6
39	Comparison Between the Inhibition Efficiencies of Two Modification Processes with PEGâ€“Ceria Based Layers Against Corrosion of Mild Steel in Chloride and Sulfate Media. Journal of Materials Engineering and Performance, 2017, 26, 4402-4414.	1.2	13
40	Oxidation performance of repaired aluminide coatings on austenitic steel substrates. Surface and Coatings Technology, 2017, 326, 224-237.	2.2	25
41	Suitable sealants for cracked aluminized austenitic steels and their oxidation behaviour. Surface and Coatings Technology, 2017, 327, 9-17.	2.2	4
42	Biocompatible superhydrophobic coating material for biomedical applications. Journal of Sol-Gel Science and Technology, 2017, 81, 791-796.	1.1	19
43	Comparative studies on water repellent coatings prepared by spin coating and spray coating methods. Progress in Organic Coatings, 2017, 104, 217-222.	1.9	23
44	Slurry aluminizing of INâ€800HT austenitic stainless steel and pure nickel. Correlations between experimental results and modelling of diffusion. Materials and Corrosion - Werkstoffe Und Korrosion, 2016, 67, 1059-1067.	0.8	17
45	Organically modified silica aerogel with different functional silylating agents and effect on their physico-chemical properties. Journal of Non-Crystalline Solids, 2016, 453, 164-171.	1.5	64
46	Influence of annealing conditions on the formation of hollow Al2O3 microspheres studied by in situ ESEM. Materials Characterization, 2016, 113, 198-206.	1.9	12
47	Influence of the oxide scale features on the electrochemical descaling and stripping of aluminide coatings. Surface and Coatings Technology, 2016, 292, 1-10.	2.2	16
48	Oxidation Resistance of Thermal Barrier Coatings Based on Hollow Alumina Particles. Oxidation of Metals, 2016, 85, 231-244.	1.0	16
49	Corrosion Resistance of Electrogalvanized Steel Coated with PEG-Modified Ceria Layers in Chloride and Sulfate Media. Journal of Materials Engineering and Performance, 2015, 24, 4626-4635.	1.2	6
50	Failure mechanism of an out-of-pack nickel aluminide coating cyclically oxidised at 1100 Â°C with water accelerated cooling. Surface and Coatings Technology, 2015, 276, 649-657.	2.2	2
51	Influence of the superalloy substrate in the synthesis of the Pt-modified aluminide bond coat made by slurry. Surface and Coatings Technology, 2015, 270, 102-108.	2.2	12
52	Synthesis of ceria based superhydrophobic coating on Ni20Cr substrate via cathodic electrodeposition. Physical Chemistry Chemical Physics, 2015, 17, 31750-31757.	1.3	29
53	Rheological Behaviour, Synthesis and Performance of Smart Thermal Barrier Coating Systems Based on Hollow Alumina. Journal of Materials Science and Chemical Engineering, 2015, 03, 17-22.	0.2	3
54	Influence of water vapour on the oxidation behaviour of a conventional aluminide and a new thermal barrier coating system sintered from a slurry. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 161-168.	0.8	8

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55	Oxidation behaviour of new electrolytically synthesized ceria modified platinum Î³/Î³â€² coatings. Surface and Coatings Technology, 2014, 248, 74-80.	2.2	3
56	Comparative Isothermal Oxidation Behaviour of New Aluminide Coatings from Slurries Containing Al Particles and Conventional Out-of-Pack Aluminide Coatings. Oxidation of Metals, 2014, 81, 139-149.	1.0	17
57	Early Stages of High Temperature Cyclic Oxidation of an Electrodeposited Ceria Coating on Nickel Superalloys Under Water-drop Tests. Oxidation of Metals, 2014, 81, 95-104.	1.0	7
58	The role of combustion synthesis in the formation of slurry aluminization. Intermetallics, 2014, 44, 8-17.	1.8	55
59	Novel concept of functional oxide coatings providing enhanced oxidation resistance to Ni-based superalloys. Materials Research Bulletin, 2014, 49, 384-387.	2.7	9
60	Effects of Grit Blasting and Annealing on the High-Temperature Oxidation Behavior of Austenitic and Ferritic Fe-Cr Alloys. Journal of Materials Engineering and Performance, 2014, 23, 2847-2857.	1.2	8
61	Durability and restoring of superhydrophobic properties in silica-based coatings. Journal of Colloid and Interface Science, 2013, 405, 262-268.	5.0	43
62	Corrosion Protection of Electro-Galvanized Steel by Ceria-Based Coatings: Effect of Polyethylene Glycol (PEG) Addition. Journal of Materials Engineering and Performance, 2013, 22, 2706-2715.	1.2	13
63	Trace element bioaccumulation in reef fish from New Caledonia: Influence of trophic groups and risk assessment for consumers. Marine Environmental Research, 2013, 87-88, 26-36.	1.1	56
64	Correlations between electrochemical mechanisms and growth of ceria based coatings onto nickel substrates. Electrochimica Acta, 2013, 88, 798-806.	2.6	23
65	Effect of water drops on the oxidation mechanisms of a ceria coated nickel-based superalloy. Corrosion Science, 2013, 68, 176-185.	3.0	21
66	Slurry aluminizing mechanisms of Ni-based superalloys incorporating an electrosynthesized ceria diffusion barrier. Materials Chemistry and Physics, 2013, 143, 416-424.	2.0	28
67	Optimizing structural and compositional properties of electrodeposited ceria coatings for enhanced oxidation resistance of a nickel-based superalloy. Applied Surface Science, 2013, 268, 218-224.	3.1	26
68	Comparative degradation of nickel aluminized by slurry and by pack cementation under isothermal conditions. Corrosion Science, 2013, 66, 118-124.	3.0	34
69	pH-distribution of cerium species in aqueous systems. Journal of Rare Earths, 2012, 30, 559-562.	2.5	85
70	Aging and thermal behavior of a PVA/Al microspheres slurry for aluminizing purposes. Materials Chemistry and Physics, 2012, 134, 360-365.	2.0	32
71	Potential thermal barrier coating systems from Al microparticles. Mechanisms of coating formation on pure nickel. Materials Chemistry and Physics, 2012, 134, 700-705.	2.0	40
72	On the Development of a Protective Oxide System in Rare Earth Oxide Coated Nickel Superalloy under Isothermal Oxidation Conditions. Materials Science Forum, 2011, 696, 284-289.	0.3	9

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73	Surface study of cerium oxide based coatings obtained by cathodic electrodeposition on zinc. Applied Surface Science, 2011, 257, 6202-6207.	3.1	82
74	Cathodic electrodeposition of cerium based oxides on carbon steel from concentrated cerium nitrate. Part II: Influence of electrodeposition parameters and of the addition of PEG. Materials Chemistry and Physics, 2010, 120, 172-180.	2.0	51
75	Electrodeposition of ceria-based layers on zinc electroplated steel. Corrosion Science, 2010, 52, 1020-1025.	3.0	38
76	On the corrosion resistance of porous electroplated zinc coatings in different corrosive media. Corrosion Science, 2010, 52, 1883-1888.	3.0	41
77	Cathodic electrodeposition of cerium-based oxides on carbon steel from concentrated cerium nitrate solutions. Materials Chemistry and Physics, 2009, 113, 650-657.	2.0	138
78	Corrosion behaviour of molybdateâ€“phosphateâ€“silicate coatings on galvanized steel. Corrosion Science, 2009, 51, 2455-2462.	3.0	39
79	Cyclic and Isothermal Oxidation at 1,100ÂÂ°C of a CVD Aluminised Directionally Solidified Ni Superalloy. Oxidation of Metals, 2008, 69, 193-210.	1.0	33
80	Controlled stripping of aluminide coatings on nickel superalloys through electrolytic techniques. Journal of Applied Electrochemistry, 2008, 38, 817-825.	1.5	13
81	Soft chemical stripping of aluminide coatings and oxide products on Ni superalloys. Surface and Coatings Technology, 2008, 202, 3100-3108.	2.2	15
82	Corrosion monitoring of galvanised coatings through electrochemical impedance spectroscopy. Corrosion Science, 2008, 50, 1558-1566.	3.0	39
83	Investigation of electrodeposited cerium oxide based films on carbon steel and of the induced formation of carbonated green rusts. Corrosion Science, 2008, 50, 2182-2188.	3.0	49
84	Effect of lamellar microstructure on oxidation kinetics of Fe3Al sintered by hot isostatic pressing. Corrosion Science, 2008, 50, 1693-1700.	3.0	5
85	Comparative Study by Electrochemical Impedance Spectroscopy (EIS) On The Corrosion Resistance of Industrial and Laboratory Zinc Coatings. American Journal of Applied Sciences, 2007, 4, 430-438.	0.1	11
86	Low energy, high-flux nitridation of face-centred cubic metallic matrices. Thin Solid Films, 2007, 515, 3661-3669.	0.8	14
87	Investigation of the microstructure of platinum-modified aluminide coatings. Surface and Coatings Technology, 2006, 200, 4032-4039.	2.2	39
88	On the aluminisation of stainless steel by CVD in fluidised beds. Surface and Coatings Technology, 2005, 190, 223-230.	2.2	30
89	Performance and thermal stability of Pt-modified Al-diffusion coatings for superalloys under cyclic and isothermal conditions. Materials at High Temperatures, 2005, 22, 411-420.	0.5	4
90	Oxidation mechanisms of low energy-high flux nitrided ODS FeAl intermetallic alloy. Materials at High Temperatures, 2005, 22, 283-286.	0.5	0

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91	TEM analysis of the growth of oxide scales at different temperatures in FeAl grade 3 intermetallic alloy. Materials at High Temperatures, 2005, 22, 545-549.	0.5	2
92	Evolution of oxide scales on an ODS FeAl intermetallic alloy during high temperature exposure in air. Intermetallics, 2005, 13, 27-33.	1.8	16
93	Performance and thermal stability of Pt-modified Al-diffusion coatings for superalloys under cyclic and isothermal conditions. Materials at High Temperatures, 2005, 22, 411-420.	0.5	15
94	High Quality Aluminide and Thermal Barrier Coatings Deposition for New and Service Exposed Parts by CVD Techniques. Materials Science Forum, 2004, 461-464, 305-312.	0.3	15
95	Low-energy high-flux nitriding of Ni and Ni20Cr substrates. Surface and Coatings Technology, 2004, 176, 236-242.	2.2	17
96	Low energyâ€“high flux nitrogen implantation of an oxide-dispersion-strengthened FeAl intermetallic alloy. Thin Solid Films, 2004, 467, 140-145.	0.8	7
97	Chromising of stainless steels by the use of the CVD-FBR technology. Surface and Coatings Technology, 2004, 184, 47-54.	2.2	16
98	Nitridation effects on the oxidation mechanisms of an ods Feâ€“Al intermetallic alloy. Applied Surface Science, 2004, 233, 35-41.	3.1	3
99	High-temperature oxidation behavior of low-energy high-flux nitrided Ni and Niâ€“20% Cr substrates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 357, 355-364.	2.6	9
100	Soft X-ray absorption spectroscopy study of the effects of Si, Ce, and Mo ion implantation on the passive layer of AISI 304 stainless steel. Corrosion Science, 2003, 45, 2043-2053.	3.0	20
101	Influence of low energyâ€“high flux nitrogen implantation on the oxidation behavior of AISI 304L austenitic stainless steel. Journal of Applied Physics, 2003, 94, 7509.	1.1	11
102	Iron oxidation under the influence of phosphate thin films. Journal of Applied Physics, 2003, 94, 784-788.	1.1	38
103	Effect of thermal cycling on the high temperature oxidation resistance of austenitic AISI 309S stainless steel. Materials and Corrosion - Werkstoffe Und Korrosion, 2002, 53, 231-238.	0.8	7
104	Silicon/silicon oxide coating on AISI 304 stainless steel by CVD in FBR: analysis of silicides and adherence of coating. Surface and Coatings Technology, 2002, 160, 87-92.	2.2	12
105	Surface modification of ion-implanted AISI 304 stainless steel after oxidation process: X-ray absorption spectroscopy analysis. Thin Solid Films, 2002, 415, 258-265.	0.8	11
106	Growth of oxide scales upon isothermal oxidation of CVD-FBR aluminide coated stainless steel. Surface and Coatings Technology, 2002, 153, 49-58.	2.2	27
107	Effects of yttrium and erbium ion implantation on the AISI 304 stainless steel passive layer. Thin Solid Films, 2002, 414, 231-238.	0.8	23
108	Title is missing!. Oxidation of Metals, 2002, 58, 563-588.	1.0	36

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109	Applications of soft X-ray absorption spectroscopy to the study of passive and oxide layers on stainless steels: influence of ion implantation. Journal of Electron Spectroscopy and Related Phenomena, 2001, 114-116, 825-829.	0.8	4
110	Silicon deposition on AISI 304 stainless steel by CVD in fluidized bed reactors: analysis of silicide formation and adhesion of coatings. Surface and Coatings Technology, 2001, 140, 93-98.	2.2	15
111	Effect of fluidized bed CVD aluminide coatings on the cyclic oxidation of austenitic AISI 304 stainless steel. Surface and Coatings Technology, 2001, 145, 1-7.	2.2	31
112	PERFORMANCE OF HEAT RESISTANT 13CrMo4 4 STEEL UNDER HIGH TEMPERATURE OXIDATION. Corrosion Reviews, 2001, 19, .	1.0	0
113	Towards high temperature materials performance through ion implantation. Materials and Corrosion - Werkstoffe Und Korrosion, 2000, 51, 344-349.	0.8	3
114	Effects of Ce, Mo and Si ion implantation on the passive layer composition and high-temperature oxidation behaviour of AISI 304 stainless-steel studied by soft x-ray absorption spectroscopy. Surface and Interface Analysis, 2000, 30, 130-134.	0.8	11
115	Adhesion properties of aluminide coatings deposited via CVD in fluidised bed reactors (CVD-FBR) on AISI 304 stainless steel. Surface and Coatings Technology, 2000, 133-134, 338-343.	2.2	17
116	Effect of yttrium and erbium ion implantation on the oxidation behaviour of the AISI 304 austenitic steel. Surface and Coatings Technology, 2000, 126, 116-122.	2.2	32
117	Kinetic studies of Cr and Al deposition using CVD-FBR on different metallic substrates. Surface and Coatings Technology, 1999, 122, 281-289.	2.2	40
118	Aluminizing and chromizing bed treatment by CVD in a fluidized bed reactor on austenitic stainless steels. Surface and Coatings Technology, 1999, 120-121, 151-157.	2.2	62
119	The influence of implanted silicon on the cyclic oxidation behaviour of two different stainless steels. Surface and Coatings Technology, 1999, 120-121, 442-447.	2.2	38
120	Corrosion protection of 13CrMo 44 heat-resistant ferritic steel by silicon and cerium ion implantation for high-temperature applications. Surface and Coatings Technology, 1998, 108-109, 121-126.	2.2	8
121	High temperature corrosion protection of austenitic AISI 304 stainless steel by Si, Mo and Ce ion implantation. Surface and Coatings Technology, 1998, 108-109, 127-131.	2.2	45
122	Efecto del silicio como posible elemento reactivo en la protecciÃ³n frente a la oxidaciÃ³n a elevada temperatura del acero inoxidable AISI 304. Revista De Metalurgia, 1998, 34, 118-121.	0.1	1
123	Evolution of Oxide Scales on Aluminide Coatings under Isothermal and Cyclic Conditions. Materials Science Forum, 0, 595-598, 11-16.	0.3	7
124	Establishment of Thermally Grown Oxides upon the Early Oxidation Stages of Ni20Cr and Ni30Cr. Defect and Diffusion Forum, 0, 289-292, 493-500.	0.4	0
125	Implications of Diffusion on the Composition and Microstructures of Platinum Modified Aluminide Coatings on CMSX-4 Single Crystal Superalloy. Defect and Diffusion Forum, 0, 289-292, 277-284.	0.4	5
126	Graded Nitrogen Ingress in FCC Metallic Structures and the Related Microstructures and High Temperature Oxidation Behaviour. Defect and Diffusion Forum, 0, 289-292, 421-428.	0.4	0

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127	Diffusion Enhanced Rumpling Associated with Martensitic Transformation upon Cycling of Aluminide Bond-Coats. Defect and Diffusion Forum, 0, 289-292, 227-233.	0.4	2
128	Diffusion of a Corroding Electrolyte through Defective Electroplated Ceria Based Coatings. Defect and Diffusion Forum, 0, 289-292, 235-242.	0.4	10
129	Enhanced Cyclic Oxidation Resistance of a Single Crystal Superalloy with an Electrodeposited Reactive Element Oxide Coating. Materials Science Forum, 0, 696, 278-283.	0.3	9
130	Electrosynthesis of Rare Earth Oxide Coatings for High Temperature Applications. Materials Science Forum, 0, 696, 336-341.	0.3	14
131	Initial Aluminizing Steps of Pure Nickel from Al Micro-Particles. Defect and Diffusion Forum, 0, 323-325, 381-386.	0.4	10
132	On the Influence of a Heat Treat for an Aluminizing Progress Based on Al Microparticles Slurry for Model Ni and Ni20Cr. Experimental and Theoretical Approaches.. Defect and Diffusion Forum, 0, 323-325, 373-379.	0.4	4