

Willem J Quadakkers

List of Publications by Year in descending order

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210
papers

9,563
citations

30070

54
h-index

53230

85
g-index

217
all docs

217
docs citations

217
times ranked

3037
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Comparison of Na ₂ SO ₄ , K ₂ SO ₄ and Na ₂ SO ₄ -K ₂ SO ₄ deposit induced hot corrosion of a $\hat{1}^2$ -NiAl coating. Corrosion Science, 2022, 198, 110146. | 6.6 | 7 |
| 2 | Modeling in High Temperature Corrosion: A Review and Outlook. Oxidation of Metals, 2021, 96, 385-436. | 2.1 | 20 |
| 3 | A Nanoscale Study of Thermally Grown Chromia on High-Cr Ferritic Steels and Associated Oxidation Mechanisms. Journal of the Electrochemical Society, 2020, 167, 061502. | 2.9 | 12 |
| 4 | Long-term operation of solid oxide fuel cells and preliminary findings on accelerated testing. International Journal of Hydrogen Energy, 2020, 45, 8955-8964. | 7.1 | 35 |
| 5 | Behaviour of Metallic Materials in Simulated Service Environments of CO ₂ /H ₂ O Co-electrolysis Systems for Power-to-X Application. Oxidation of Metals, 2019, 92, 353-377. | 2.1 | 8 |
| 6 | Effect of Nb Addition on Oxidation Mechanisms of High Cr Ferritic Steel in Ar $\hat{1}^2$ -H ₂ $\hat{1}^2$ -H ₂ O. Oxidation of Metals, 2019, 92, 471-491. | 2.1 | 15 |
| 7 | Influence of Different Annealing Atmospheres on the Mechanical Properties of Freestanding MCrAlY Bond Coats Investigated by Micro-Tensile Creep Tests. Metals, 2019, 9, 692. | 2.3 | 3 |
| 8 | Interaction of a Barium $\hat{1}^2$ -Calcium $\hat{1}^2$ -Silicate Glass Composite Sealant with Sanergy HT 441. Fuel Cells, 2019, 19, 494-502. | 2.4 | 1 |
| 9 | Correlative Atom Probe Tomography and Transmission Electron Microscopy Analysis of Grain Boundaries in Thermally Grown Alumina Scale. Microscopy and Microanalysis, 2019, 25, 11-20. | 0.4 | 14 |
| 10 | Post $\hat{1}^2$ -test Characterization of Metallic Materials and Adjacent Components in an SOFC Stack After 34,000 $\hat{1}^2$ h Operation at 700 $\hat{1}^2$ °C. Fuel Cells, 2019, 19, 84-95. | 2.4 | 20 |
| 11 | Stability of External $\hat{1}^2$ -Al ₂ O ₃ Scales on Alloy 602 CA at 1100 $\hat{1}^2$ -1200 $\hat{1}^2$ °C. Oxidation of Metals, 2018, 90, 119-133. | 1.1 | 4 |
| 12 | Influence of Alloying Elements on the Behavior of Different Ferritic Steels as Candidate Materials for SOFC Interconnect. Oxidation of Metals, 2018, 89, 61-80. | 2.1 | 8 |
| 13 | Effect of test atmosphere composition on high-temperature oxidation behaviour of CoNiCrAlY coatings produced from conventional and ODS powders. Materials at High Temperatures, 2018, 35, 97-107. | 1.0 | 24 |
| 14 | Corrosion behavior of candidate heat exchanger materials in oxidizing and reducing gases relevant to oxyfuel power plants. Materials at High Temperatures, 2018, 35, 275-290. | 1.0 | 9 |
| 15 | Alumina formation and microstructural changes of aluminized CoNiCrAlY coating during high temperature exposure in the temperature range 925 $\hat{1}^2$ °C $\hat{1}^2$ -1075 $\hat{1}^2$ °C. Materials at High Temperatures, 2018, 35, 66-77. | 1.0 | 12 |
| 16 | Effect of Sulphur on the Oxidation Behaviour of Possible Construction Materials for Heat Exchangers in Oxyfuel Plants in the Temperature Range 550 $\hat{1}^2$ °C $\hat{1}^2$ -700 $\hat{1}^2$ °C. Oxidation of Metals, 2018, 89, 651-681. | 2.1 | 21 |
| 17 | High-temperature behavior of oxide dispersion strengthening CoNiCrAlY. Materials at High Temperatures, 2018, 35, 108-119. | 1.0 | 17 |
| 18 | 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 |

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|----|---|-----|-----------|
| 19 | Corrosion Behavior of Austenitic Stainless Steels in Oxidizing and Reducing Gases Relevant to Oxyfuel Power Plants. <i>Jom</i> , 2018, 70, 1502-1510. | 1.9 | 2 |
| 20 | Phase Transformations in Co-Ni-Cr-W Alloys During High Temperature Exposure to Steam Environment. <i>Journal of Phase Equilibria and Diffusion</i> , 2018, 39, 387-400. | 1.4 | 2 |
| 21 | Effect of Titanium Addition on Alumina Growth Mechanism on Yttria-Containing FeCrAl-Base Alloy. <i>Oxidation of Metals</i> , 2018, 90, 671-690. | 2.1 | 35 |
| 22 | Predicting Effect of Base Alloy Composition on Oxidation- and Interdiffusion-Induced Degradation of an MCrAlY Coating. <i>Jom</i> , 2018, 70, 1520-1526. | 1.9 | 9 |
| 23 | Korrosionsverhalten metallischer Werkstoffe in schwefelhaltigen Gasen mit niedrigem Sauerstoffpartialdruck im Temperaturbereich 500â€“700 Å°C. , 2018, , 813-831. | | 0 |
| 24 | Effect of alloy composition on the oxidationâ€“induced boron depletion in cast Niâ€“base superalloy components. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017, 68, 171-185. | 1.5 | 15 |
| 25 | EFCâ€“Workshop: Insight, mechanisms and modelling in high temperature corrosion. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017, 68, 124-124. | 1.5 | 0 |
| 26 | Isothermal and cyclic oxidation behavior of free standing MCrAlY coatings manufactured by high-velocity atmospheric plasma spraying. <i>Surface and Coatings Technology</i> , 2017, 313, 191-201. | 4.8 | 58 |
| 27 | Future Directions in the Field of High-Temperature Corrosion Research. <i>Oxidation of Metals</i> , 2017, 87, 681-704. | 2.1 | 24 |
| 28 | Predicting Oxidation-Limited Lifetime of Thin-Walled Components of NiCrW Alloy 230. <i>Oxidation of Metals</i> , 2017, 87, 11-38. | 2.1 | 33 |
| 29 | Overview on Recent Developments of Bondcoats for Plasma-Sprayed Thermal Barrier Coatings. <i>Journal of Thermal Spray Technology</i> , 2017, 26, 1743-1757. | 3.1 | 52 |
| 30 | Oxidation behaviour and phase transformations of an interconnect material in simulated anode environment of intermediate temperature solid oxide fuel cells. <i>Materials at High Temperatures</i> , 2017, 34, 61-77. | 1.0 | 9 |
| 31 | Effect of gas flow rate on oxidation behaviour of alloy 625 in wet air in the temperature range 900â€“1000â€‰%Å°C. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017, 68, 159-170. | 1.5 | 22 |
| 32 | Impact of processing conditions and feedstock characteristics on thermally sprayed MCrAlY bondcoat properties. <i>Surface and Coatings Technology</i> , 2017, 318, 114-121. | 4.8 | 29 |
| 33 | Effect of Zr Content on the Morphology and Emissivity of Surface Oxide Scales on FeCrAlY Alloys. <i>Advanced Engineering Materials</i> , 2016, 18, 711-720. | 3.5 | 7 |
| 34 | Modeling Interdiffusion Processes in CMSX-10/Ni Diffusion Couple. <i>Journal of Phase Equilibria and Diffusion</i> , 2016, 37, 201-211. | 1.4 | 23 |
| 35 | Current Thoughts on Reactive Element Effects in Alumina-Forming Systems: In Memory of John Stringer. <i>Oxidation of Metals</i> , 2016, 86, 1-43. | 2.1 | 164 |
| 36 | Effect of SO2 Addition on Air Oxidation Behavior of CM247 and CMSX-4 at 1050Å°C. <i>Jom</i> , 2016, 68, 2776-2785. | 1.9 | 5 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Behavior of Metallic Components During 4,000h Operation of an SOFC Stack with Carbon Containing Fuel Gas. Fuel Cells, 2016, 16, 600-610. | 2.4 | 10 |
| 38 | Effect of in-situ gas changes on thermally grown chromia scales formed on Ni ₂₅ Cr alloy at 1000°C in atmospheres with and without water vapour. Materials at High Temperatures, 2015, 32, 238-247. | 1.0 | 14 |
| 39 | Effect of Specimen Thickness on Microstructural Changes During Oxidation of the NiCrW Alloy 230 at 950-1050°C. Jom, 2015, 67, 2573-2588. | 1.9 | 11 |
| 40 | 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 |
| 41 | Modelling compositional changes in nickel base alloy 602 CA during high temperature oxidation. Materials at High Temperatures, 2015, 32, 102-112. | 1.0 | 41 |
| 42 | Boron Depletion in a Nickel Base Superalloy Induced by High Temperature Oxidation. Oxidation of Metals, 2015, 83, 393-413. | 2.1 | 27 |
| 43 | Modeling carbide dissolution in alloy 602 CA during high temperature oxidation. Corrosion Science, 2015, 96, 32-41. | 6.6 | 51 |
| 44 | Development of storage materials for high-temperature rechargeable oxide batteries. Journal of Energy Storage, 2015, 1, 54-64. | 8.1 | 28 |
| 45 | Oxidation and reduction kinetics of iron and iron based alloys used as storage materials in high temperature battery. Materials at High Temperatures, 2015, 32, 81-91. | 1.0 | 9 |
| 46 | Effect of specimen thickness on chromia scaling of Ni ₂₅ Cr in Ni ₂ O-H ₂ O test gases at 1000°C. Materials at High Temperatures, 2015, 32, 160-166. | 1.0 | 8 |
| 47 | Scale Formation of Alloy 602 CA During Isothermal Oxidation at 800-1100°C in Different Types of Water Vapor Containing Atmospheres. Oxidation of Metals, 2015, 84, 661-694. | 2.1 | 19 |
| 48 | Temperature Dependence of Laves Phase Composition in Nb, W and Si-Alloyed High Chromium Ferritic Steels for SOFC Interconnect Applications. Journal of Phase Equilibria and Diffusion, 2015, 36, 471-484. | 1.4 | 19 |
| 49 | Microstructural stability and oxidation behavior of Sanicro 25 during long-term steam exposure in the temperature range 600-750°C. Materials and Corrosion - Werkstoffe Und Korrosion, 2015, 66, 315-327. | 1.5 | 45 |
| 50 | Long-term behaviour of solid oxide fuel cell interconnect materials in contact with Ni-mesh during exposure in simulated anode gas at 700 and 800°C. Journal of Power Sources, 2014, 271, 213-222. | 7.8 | 29 |
| 51 | Effect of nickel base superalloy composition on oxidation resistance in SO ₂ containing, high pO ₂ environments. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 178-187. | 1.5 | 46 |
| 52 | Effects of water vapour on the high temperature nitridation of chromium. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 260-266. | 1.5 | 21 |
| 53 | Preface: Beyond Single Oxidants. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 108-108. | 1.5 | 0 |
| 54 | Development of high chromium ferritic steels strengthened by intermetallic phases. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 594, 372-380. | 5.6 | 64 |

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|----|--|-----|-----------|
| 55 | Steam Oxidation of 9% to 12%Cr Steels: Critical Evaluation and Implications for Practical Application. Corrosion, 2014, 70, 112-129. | 1.1 | 22 |
| 56 | Corrosion Behavior of Metallic Materials for Innovative Gasification Processes. Chemie-Ingenieur-Technik, 2014, 86, 1726-1734. | 0.8 | 2 |
| 57 | Effect of SO_2 on oxidation of metallic materials in CO_2/H_2O rich gases relevant to oxyfuel environments. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 121-131. | 1.5 | 41 |
| 58 | Effect of processing parameters on MCrAlY bondcoat roughness and lifetime of APS/TBC systems. Surface and Coatings Technology, 2014, 260, 82-89. | 4.8 | 91 |
| 59 | Oxidation behaviour and microstructural stability of alloy 625 during long-term exposure in steam. Journal of Materials Science, 2014, 49, 6127-6142. | 3.7 | 45 |
| 60 | Mechanisms of Oxide Scale Formation on Ferritic Interconnect Steel in Simulated Low and High pO_2 Service Environments of Solid Oxide Fuel Cells. Oxidation of Metals, 2014, 82, 123-143. | 2.1 | 43 |
| 61 | Non-steady state carburisation of martensitic 9%Cr steels in CO_2 rich gases at 550°C. Corrosion Science, 2014, 88, 161-169. | 6.6 | 61 |
| 62 | Slow Transition from Protective to Breakaway Oxidation of Haynes 214 Foil at High Temperature. Oxidation of Metals, 2013, 79, 405-427. | 2.1 | 26 |
| 63 | Power-To-Storage - The Use of an Anode-Supported Solid Oxide Fuel Cell as a High-Temperature Battery. ECS Transactions, 2013, 57, 255-267. | 0.5 | 25 |
| 64 | Effect of oxygen content in NiCoCrAlY bondcoat on the lifetimes of EB-PVD and APS thermal barrier coatings. Surface and Coatings Technology, 2013, 221, 207-213. | 4.8 | 63 |
| 65 | Effect of Specimen Thickness on the Oxidation Rate of High Chromium Ferritic Steels: The Significance of Intrinsic Alloy Creep Strength. Oxidation of Metals, 2013, 79, 15-28. | 2.1 | 25 |
| 66 | Influence of vacuum heat treatment parameters on the surface composition of MCrAlY coatings. Surface and Coatings Technology, 2013, 215, 24-29. | 4.8 | 17 |
| 67 | Long Term Resistivity Behavior of SOFC Interconnect/Ni-Mesh/Anode Interfaces. ECS Transactions, 2013, 57, 2279-2288. | 0.5 | 9 |
| 68 | Overview on the $\frac{1}{4}$ SOFC Development Status. ECS Transactions, 2013, 57, 23-33. | 0.5 | 24 |
| 69 | Composition modifications and heat treatment procedures for increasing the emissivity of alumina surface scales on FeCrAl alloys. Materials at High Temperatures, 2012, 29, 249-256. | 1.0 | 6 |
| 70 | Analysis of the Reactive Element Effect on the Oxidation of Ceria Doped Nickel. Oxidation of Metals, 2012, 78, 197-210. | 2.1 | 5 |
| 71 | Behavior of Interconnect Steels in Carbon Containing Simulated Anode Gas of Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2012, 159, F725-F732. | 2.9 | 17 |
| 72 | Oxide scale formation and subsurface phase transformations during long-term steam exposure of the cobalt base alloy 25. Materials and Corrosion - Werkstoffe Und Korrosion, 2012, 63, 878-888. | 1.5 | 15 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | A Simple Expression for Predicting the Oxidation Limited Life of Thin Components Manufactured from FCC High Temperature Alloys. Oxidation of Metals, 2012, 77, 253-264. | 2.1 | 29 |
| 74 | Temperature dependence of oxide scale formation on high-Cr ferritic steels in Ar-H ₂ -H ₂ O. Corrosion Science, 2011, 53, 2131-2141. | 6.6 | 90 |
| 75 | Temperature and gas composition dependence of internal oxidation kinetics of an Fe-10%Cr alloy in water vapour containing environments. Materials and Corrosion - Werkstoffe Und Korrosion, 2011, 62, 504-513. | 1.5 | 16 |
| 76 | Sub-Scale Depletion and Enrichment Processes During High Temperature Oxidation of the Nickel Base Alloy 625 in the Temperature Range 900-1000°C. Oxidation of Metals, 2011, 75, 143-166. | 2.1 | 105 |
| 77 | Effect of Zr Additions on the Oxidation Kinetics of FeCrAlY Alloys in Low and High pO ₂ Gases. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 1173-1183. | 2.2 | 19 |
| 78 | Effect of atmosphere composition on the oxidation behavior of MCrAlY coatings. Materials and Corrosion - Werkstoffe Und Korrosion, 2011, 62, 699-705. | 1.5 | 21 |
| 79 | Effect of Laves phase strengthening on the mechanical properties of high Cr ferritic steels for solid oxide fuel cell interconnect application. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5888-5899. | 5.6 | 82 |
| 80 | Subsurface Depletion and Enrichment Processes During Oxidation of a High Chromium, Laves-Phase Strengthened Ferritic Steel. Electrochemical and Solid-State Letters, 2011, 14, P17. | 2.2 | 19 |
| 81 | Anode Side Diffusion Barrier Coating for Solid Oxide Fuel Cells Interconnects. Journal of Fuel Cell Science and Technology, 2010, 7, . | 0.8 | 24 |
| 82 | Potential suitability of ferritic and austenitic steels as interconnect materials for solid oxide fuel cells operating at 600°C. Journal of Power Sources, 2010, 195, 7600-7608. | 7.8 | 36 |
| 83 | Effect of Alloy Composition and Exposure Conditions on the Selective Oxidation Behavior of Ferritic Fe-Cr and Fe-Cr-X Alloys. Oxidation of Metals, 2010, 74, 319-340. | 2.1 | 165 |
| 84 | Oxidation Limited Lifetime of Ni-Based Metal Foams in the Temperature Range 700-900°C. Advanced Engineering Materials, 2010, 12, 873-883. | 3.5 | 22 |
| 85 | Oxidation kinetics of Y-doped FeCrAl alloys in low and high pO ₂ gases. Materials and Corrosion - Werkstoffe Und Korrosion, 2010, 61, 838-844. | 1.5 | 55 |
| 86 | The oxidation behaviour of the 9 % Cr steel P92 in CO ₂ - and H ₂ O-rich gases relevant to oxyfuel environments. International Journal of Materials Research, 2010, 101, 287-299. | 0.3 | 47 |
| 87 | Oxidation in Steam and Steam/Hydrogen Environments. , 2010, , 407-456. | | 37 |
| 88 | High Temperature Corrosion Issues for Metallic Materials in Solid Oxide Fuel Cells. , 2010, , 482-517. | | 22 |
| 89 | Oxidation Behaviour of Fe-Cr Based Alloys in Simulated Anode Side Gases of a Solid Oxide Fuel Cell. , 2009, , . | | 1 |
| 90 | Magnetic moment investigation by frequency mixing techniques. Review of Scientific Instruments, 2009, 80, 115106. | 1.3 | 12 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 91 | Scale formation mechanisms of martensitic steels in high CO ₂ /H ₂ O-containing gases simulating oxyfuel environments. <i>Materials at High Temperatures</i> , 2009, 26, 63-72. | 1.0 | 80 |
| 92 | Failure mechanisms of thermal barrier coatings on MCrAlY-type bondcoats associated with the formation of the thermally grown oxide. <i>Journal of Materials Science</i> , 2009, 44, 1687-1703. | 3.7 | 147 |
| 93 | Effect of water vapor on high-temperature oxidation of FeCr alloys. <i>Jom</i> , 2009, 61, 44-50. | 1.9 | 79 |
| 94 | Y-rich oxide distribution in plasma sprayed MCrAlY-coatings studied by SEM with a cathodoluminescence detector and Raman spectroscopy. <i>Surface and Coatings Technology</i> , 2009, 204, 531-538. | 4.8 | 79 |
| 95 | Effect of exposure conditions on the oxidation of MCrAlY-bondcoats and lifetime of thermal barrier coatings. <i>Surface and Coatings Technology</i> , 2009, 204, 820-823. | 4.8 | 31 |
| 96 | Blistering of MCrAlY-coatings in H ₂ /H ₂ O-atmospheres. <i>Corrosion Science</i> , 2009, 51, 446-450. | 6.6 | 21 |
| 97 | Effect of specimen thickness on the growth rate of chromia scales on Ni-base alloys in high- and low-pO ₂ gases. <i>Journal of Alloys and Compounds</i> , 2009, 467, 450-458. | 5.5 | 27 |
| 98 | The Effect of Water Vapor on Selective Oxidation of Fe-Cr Alloys. <i>Oxidation of Metals</i> , 2008, 69, 143-162. | 2.1 | 190 |
| 99 | Modification of alumina scale formation on FeCrAlY alloys by minor additions of group IVa elements. <i>Journal of Materials Science</i> , 2008, 43, 4550-4560. | 3.7 | 38 |
| 100 | Effect of oxygen partial pressure on the oxidation behaviour of an yttria dispersion strengthened NiCr-base alloy. <i>Journal of Materials Science</i> , 2008, 43, 5591-5598. | 3.7 | 16 |
| 101 | Identification of degradation mechanisms in coatings for supercritical steam applications. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2008, 59, 402-408. | 1.5 | 11 |
| 102 | Effect of manufacturing related parameters on oxidation properties of MCrAlY-bondcoats. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2008, 59, 463-470. | 1.5 | 35 |
| 103 | Parameters affecting TGO growth rate and the lifetime of TBC systems with MCrAlY-bondcoats. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2008, 59, 501-507. | 1.5 | 41 |
| 104 | Growth and adherence of chromia based surface scales on Ni-base alloys in high- and low-pO ₂ gases. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 477, 259-270. | 5.6 | 170 |
| 105 | Development of high strength ferritic steel for interconnect application in SOFCs. <i>Journal of Power Sources</i> , 2008, 178, 163-173. | 7.8 | 201 |
| 106 | Protective and non-protective scale formation of NiCr alloys in water vapour containing high- and low-pO ₂ gases. <i>Corrosion Science</i> , 2008, 50, 1753-1760. | 6.6 | 75 |
| 107 | Chromium vaporization from alumina-forming and aluminized alloys. <i>Solid State Ionics</i> , 2008, 179, 2406-2415. | 2.7 | 22 |
| 108 | Mechanisms of oxidation and the influence of steam oxidation on service life of steam power plant components. , 2008, , 519-535. | | 2 |

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|-----|---|-----|-----------|
| 109 | Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. <i>Fuel Cells</i> , 2007, 7, 204-210. | 2.4 | 52 |
| 110 | Temperature dependence of phase relationships in different types of MCrAlY-coatings. <i>Surface and Coatings Technology</i> , 2007, 202, 603-607. | 4.8 | 60 |
| 111 | Reduction of chromium vaporization from SOFC interconnectors by highly effective coatings. <i>Journal of Power Sources</i> , 2007, 164, 578-589. | 7.8 | 249 |
| 112 | Enhanced internal oxidation as trigger for breakaway oxidation of Fe-Cr alloys in gases containing water vapor. <i>Scripta Materialia</i> , 2007, 57, 845-848. | 5.2 | 143 |
| 113 | Correlation between the Microstructure, Growth Mechanism, and Growth Kinetics of Alumina Scales on a FeCrAlY Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007, 38, 2974-2983. | 2.2 | 103 |
| 114 | Mechanisms of steam oxidation in high strength martensitic steels. <i>International Journal of Pressure Vessels and Piping</i> , 2007, 84, 75-81. | 2.6 | 56 |
| 115 | Implications of steam oxidation for the service life of high-strength martensitic steel components in high-temperature plant. <i>International Journal of Pressure Vessels and Piping</i> , 2007, 84, 82-87. | 2.6 | 67 |
| 116 | Enhanced oxidation of the 9%Cr steel P91 in water vapour containing environments. <i>Corrosion Science</i> , 2006, 48, 3428-3454. | 6.6 | 270 |
| 117 | Determination of Corrosion Layers and Protective Coatings on Steels and Alloys Used in Simulated Service Environment of Modern Power Plants. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2006, 128, 130-139. | 0.6 | 2 |
| 118 | Overview of the Development of Solid Oxide Fuel Cells at Forschungszentrum Juelich. <i>International Journal of Applied Ceramic Technology</i> , 2006, 3, 470-476. | 2.1 | 40 |
| 119 | Parameters affecting TGO growth and adherence on MCrAlY-bond coats for TBC's. <i>Surface and Coatings Technology</i> , 2006, 201, 3906-3910. | 4.8 | 131 |
| 120 | Effect of surface condition on the oxidation behaviour of MCrAlY coatings. <i>Surface and Coatings Technology</i> , 2006, 201, 3824-3828. | 4.8 | 143 |
| 121 | Cracking in and around the thermally grown oxide in thermal barrier coatings: A comparison of isothermal and cyclic oxidation. <i>Journal of Materials Science</i> , 2006, 41, 1047-1058. | 3.7 | 41 |
| 122 | Evidence for Cr-carbide formation at the scale/metal interface during oxidation of FeCrAl alloys. <i>Materials Letters</i> , 2006, 60, 1654-1658. | 2.6 | 24 |
| 123 | Growth Mechanisms and Electrical Conductivity of Oxide Scales on Ferritic Steels Proposed as Interconnect Materials for SOFC's. <i>Fuel Cells</i> , 2006, 6, 93-99. | 2.4 | 76 |
| 124 | Influence of cycling parameter variation on thermal cyclic oxidation testing of high temperature materials (COTEST). <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2006, 57, 31-42. | 1.5 | 7 |
| 125 | Oxidation behaviour of Fe-Cr-Al alloys during resistance and furnace heating. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2006, 57, 115-121. | 1.5 | 9 |
| 126 | A novel method to evaluate the suitability of glass sealant/alloy combinations under SOFC stack conditions. <i>Journal of Power Sources</i> , 2005, 141, 102-107. | 7.8 | 31 |

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|-----|--|-----|-----------|
| 127 | Behaviour of various glass-ceramic sealants with ferritic steels under simulated SOFC stack conditions. <i>Journal of Power Sources</i> , 2005, 150, 86-100. | 7.8 | 78 |
| 128 | Oxidation characteristics of a platinized MCrAlY bond coat for TBC systems during cyclic oxidation at 1000 Å°C. <i>Surface and Coatings Technology</i> , 2005, 199, 77-82. | 4.8 | 83 |
| 129 | Optical fluorescence spectroscopy for identification of minor oxide phases in alumina scales grown on high temperature alloys. <i>Materials Characterization</i> , 2005, 55, 320-331. | 4.4 | 5 |
| 130 | Metastable alumina formation during oxidation of FeCrAl and its suppression by surface treatments. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2005, 56, 843-847. | 1.5 | 20 |
| 131 | Effects of minor additions and impurities on oxidation behaviour of FeCrAl alloys. Development of novel surface coatings compositions. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2005, 56, 848-853. | 1.5 | 28 |
| 132 | Lifetime extension of FeCrAlRE alloys in air: Potential roles of an enhanced Al-reservoir and surface pre-treatment. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2005, 56, 854-866. | 1.5 | 13 |
| 133 | Steam oxidation and its potential effects on creep strength of power station materials. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2005, 56, 890-896. | 1.5 | 15 |
| 134 | Novel Approaches to the Improvement of High Temperature Corrosion Resistance. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2005, 56, 747-747. | 1.5 | 1 |
| 135 | Evaluation of the suitability of various glass sealant-alloy combinations under SOFC stack conditions. <i>Journal of Materials Science</i> , 2005, 40, 1583-1592. | 3.7 | 48 |
| 136 | The Effect of Water-Vapor Content and Gas Flow Rate on the Oxidation Mechanism of a 10%Cr-Ferritic Steel in Ar-H ₂ O Mixtures. <i>Oxidation of Metals</i> , 2005, 63, 401-422. | 2.1 | 65 |
| 137 | Steam oxidation of ferritic steels - laboratory test kinetic data. <i>Materials at High Temperatures</i> , 2005, 22, 47-60. | 1.0 | 17 |
| 138 | Effect of water vapour on growth and adherence of chromia scales formed on Cr in high and low pO ₂ environments at 1000 and 1050Å°C. <i>Materials at High Temperatures</i> , 2005, 22, 213-221. | 1.0 | 55 |
| 139 | Modelling of phase distributions in MCrAlY coatings and their interactions with nickel based alloys. <i>European Physical Journal Special Topics</i> , 2004, 120, 231-238. | 0.2 | 9 |
| 140 | Metallic materials in solid oxide fuel cells. <i>Materials Research</i> , 2004, 7, 203-208. | 1.3 | 34 |
| 141 | Growth Rates of Alumina Scales on Fe-Cr-Al Alloys. <i>Oxidation of Metals</i> , 2004, 61, 17-37. | 2.1 | 123 |
| 142 | The Use of SIMS, SEM, EPMA, LRS and X-Ray Diffraction Measurements for the Examination of Corrosive Layers and Protective Coatings on Steels and Alloys in Advanced Power Stations. <i>Mikrochimica Acta</i> , 2004, 148, 241-249. | 5.0 | 7 |
| 143 | Oxidation limited life times of chromia forming ferritic steels. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2004, 55, 825-830. | 1.5 | 96 |
| 144 | Modelling of phase equilibria in MCrAlY coating systems. <i>Surface and Coatings Technology</i> , 2004, 187, 272-283. | 4.8 | 112 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | Anomalous temperature dependence of oxidation kinetics during steam oxidation of ferritic steels in the temperature range 550–650 °C. <i>Corrosion Science</i> , 2004, 46, 2301-2317. | 6.6 | 150 |
| 146 | Oxidation Induced Lifetime Limits of Chromia Forming Ferritic Interconnector Steels. <i>Journal of Fuel Cell Science and Technology</i> , 2004, 1, 30-34. | 0.8 | 49 |
| 147 | Determination of Corrosion Layers and Protective Coatings on Steels and Alloys Used in Simulated Service Environment of Modern Power Plants. , 2004, , 135. | | 0 |
| 148 | Oxidation-Resistant Aluminide Coatings on $\hat{\text{T}}\text{iAl}$. <i>Oxidation of Metals</i> , 2003, 59, 233-255. | 2.1 | 84 |
| 149 | Role of Water Vapor in Chromia-Scale Growth at Low Oxygen Partial Pressure. <i>Oxidation of Metals</i> , 2003, 59, 285-301. | 2.1 | 122 |
| 150 | Fundamental considerations for the development of oxidation-resistant alloys and coatings based on $\hat{\text{T}}\text{iAl}$. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 2247-2251. | 2.2 | 22 |
| 151 | Parameters affecting transient oxide formation on FeCrAl based foil and fibre materials. <i>Materials at High Temperatures</i> , 2003, 20, 287-293. | 1.0 | 39 |
| 152 | High-Temperature Oxidation of FeCrAl Alloys: The Effect of Mg Incorporation into the Alumina Scale. <i>International Journal of Materials Research</i> , 2003, 94, 180-187. | 0.8 | 14 |
| 153 | Metallic interconnectors for solid oxide fuel cells – a review. <i>Materials at High Temperatures</i> , 2003, 20, 115-127. | 1.0 | 287 |
| 154 | Analysis of corrosion layers on protective coatings and high temperature materials in simulated service environments of modern power plants using SNMS, SIMS, SEM, TEM, RBS and X-ray diffraction studies. <i>Analytical and Bioanalytical Chemistry</i> , 2002, 374, 581-587. | 3.7 | 28 |
| 155 | Development of oxidation resistant coatings for $\hat{\text{T}}\text{iAl}$ based alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2002, 328, 297-301. | 5.6 | 56 |
| 156 | The Creep Rupture Properties of 9% Chromium Steels and the Influence of Oxidation on Strength. <i>Mineral Processing and Extractive Metallurgy Review</i> , 2001, 22, 181-195. | 5.0 | 9 |
| 157 | Batch to batch variations in the oxidation behaviour of alumina forming Fe-based alloys. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2000, 51, 350-357. | 1.5 | 35 |
| 158 | Title is missing!. <i>Oxidation of Metals</i> , 2000, 54, 211-235. | 2.1 | 72 |
| 159 | Significance of crystallographic grain orientation for oxide scale formation on FeCrAl ODS alloys studied by AFM and MCs+SIMS. <i>Materials at High Temperatures</i> , 2000, 17, 159-163. | 1.0 | 7 |
| 160 | Development of NiCrAlY Alloys for Corrosion-Resistant Coatings and Thermal Barrier Coatings of Gas Turbine Components. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 1999, 121, 384-387. | 0.6 | 28 |
| 161 | Oxide scale formation and microstructural changes during high temperature exposure of mechanically alloyed ODS alloys studied by AFM, TEM and SIMS/SNMS. <i>Journal of Electron Microscopy</i> , 1999, 48, 725-730. | 0.9 | 2 |
| 162 | Carburization of Cr-based ODS alloys in SOFC relevant environments. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 1998, 49, 252-257. | 1.5 | 17 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 163 | The effect of water vapor on the oxidation behavior of 9%Cr steels in simulated combustion gases. Fresenius' Journal of Analytical Chemistry, 1998, 361, 540-544. | 1.5 | 49 |
| 164 | TEM and SNMS studies on the oxidation behaviour of NiCrAlY-based coatings. Fresenius' Journal of Analytical Chemistry, 1997, 358, 122-126. | 1.5 | 17 |
| 165 | Oxidation behavior of mechanically alloyed chromium based alloys. Fresenius' Journal of Analytical Chemistry, 1997, 358, 230-232. | 1.5 | 12 |
| 166 | The effect of niobium ion implantation on the oxidation behavior of α -TiAl-based intermetallic. Oxidation of Metals, 1996, 46, 19-35. | 2.1 | 96 |
| 167 | Effect of γ -alumina formation on the growth kinetics of alumina-forming superalloys. Oxidation of Metals, 1996, 46, 465-480. | 2.1 | 86 |
| 168 | The oxidation behaviour of niobium containing γ -TiAl based intermetallics in air and argon/oxygen. Mikrochimica Acta, 1995, 119, 23-39. | 5.0 | 67 |
| 169 | Studies concerning the effect of nitrogen on the oxidation behavior of TiAl-based intermetallics at 900 \pm 1/2C. Oxidation of Metals, 1995, 44, 477-499. | 2.1 | 90 |
| 170 | Oxidation and corrosion behaviour of mild steel laser alloyed with nickel and chromium. Journal of Materials Science, 1995, 30, 4684-4691. | 3.7 | 5 |
| 171 | The influence of implanted chromium and yttrium on the oxidation behaviour of TiAl-based intermetallics. Journal of Materials Science, 1995, 30, 5793-5798. | 3.7 | 25 |
| 172 | Determination of lattice and grain boundary diffusion coefficients in protective alumina scales on high temperature alloys using SEM, TEM and SIMS. Fresenius' Journal of Analytical Chemistry, 1995, 353, 267-270. | 1.5 | 31 |
| 173 | Oxidation induced lifetime limits of thin walled, iron based, alumina forming, oxide dispersion strengthened alloy components. Materials Science and Technology, 1994, 10, 126-131. | 1.6 | 96 |
| 174 | AES investigations of local inhomogeneities in aluminium oxide films on Fe-based alloys. Surface and Interface Analysis, 1994, 22, 467-471. | 1.8 | 0 |
| 175 | The prediction of breakaway oxidation for alumina forming ODS alloys using oxidation diagrams. Materials and Corrosion - Werkstoffe Und Korrosion, 1994, 45, 232-241. | 1.5 | 102 |
| 176 | Quantification of SIMS depth profiles of ODS-superalloys by using cluster ion formation from reactive primary ions. Fresenius' Journal of Analytical Chemistry, 1994, 349, 140-141. | 1.5 | 1 |
| 177 | Oxidation induced lifetime limits of thin walled, iron based, alumina forming, oxide dispersion strengthened alloy components. Materials Science and Technology, 1994, 10, 126-131. | 1.6 | 14 |
| 178 | Points to be considered in thermogravimetry. Materials and Corrosion - Werkstoffe Und Korrosion, 1993, 44, 345-350. | 1.5 | 14 |
| 179 | Distribution and transport of yttrium in alumina scales on iron-base ODS alloys. Solid State Ionics, 1993, 59, 235-242. | 2.7 | 40 |
| 180 | The influence of cooling rate during alloy casting on the oxidation behaviour of TiAl-based intermetallics. Journal of Materials Science, 1993, 28, 5869-5874. | 3.7 | 34 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 181 | On the mechanism of the oxidation of NiCrAl-base alloys in air and air containing sulphur dioxide. Oxidation of Metals, 1993, 40, 275-294. | 2.1 | 13 |
| 182 | Surface analytical investigations on the oxidation behaviour of TiAl-base intermetallics. Fresenius' Journal of Analytical Chemistry, 1993, 346, 75-78. | 1.5 | 43 |
| 183 | Quantitative analysis of oxide films on ODS-alloys using MCs+-SIMS and e-beam SNMS. Fresenius' Journal of Analytical Chemistry, 1993, 346, 186-191. | 1.5 | 39 |
| 184 | Analysis and modelling of transport processes in alumina scales on high temperature alloys. Fresenius' Journal of Analytical Chemistry, 1993, 346, 318-322. | 1.5 | 33 |
| 185 | The effect of microstructure on the oxidation behaviour of TiAl-based intermetallics. Corrosion Science, 1993, 34, 615-630. | 6.6 | 84 |
| 186 | The effect of selective oxidation of chromium on the creep strength of alloy 617. European Physical Journal Special Topics, 1993, 03, C9-979-C9-986. | 0.2 | 6 |
| 187 | Composition, structure and protective properties of alumina scales on iron-based oxide dispersion strengthened alloys. Materials at High Temperatures, 1992, 10, 23-32. | 1.0 | 59 |
| 188 | Effect of selective oxidation of chromium on creep strength of Alloy 617. Materials Science and Technology, 1992, 8, 78-82. | 1.6 | 22 |
| 189 | Analysis of composition and growth mechanisms of oxide scales on high temperature alloys by SNMS, SIMS, and RBS. Mikrochimica Acta, 1992, 107, 197-206. | 5.0 | 31 |
| 190 | The effect of implanted yttrium on the growth and adherence of alumina scales on Fe-20Cr-5Al. Applied Surface Science, 1991, 47, 261-272. | 6.1 | 46 |
| 191 | Composition and growth mechanisms of alumina scales on FeCrAl-based alloys determined by SNMS. Applied Surface Science, 1991, 52, 271-287. | 6.1 | 159 |
| 192 | SIMS investigations on the growth mechanisms of protective chromia and alumina surface scales. Mikrochimica Acta, 1990, 101, 109-119. | 5.0 | 12 |
| 193 | Growth mechanisms of oxide scales on ODS alloys in the temperature range 1000-1100Å°C. Materials and Corrosion - Werkstoffe Und Korrosion, 1990, 41, 659-668. | 1.5 | 107 |
| 194 | A mathematical model describing carburization in multielement alloy systems. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 1021-1028. | 1.4 | 49 |
| 195 | Use of acoustic emission technique to study the spalling behaviour of oxide scales on Ni-10Cr-8Al containing sulphur and/or yttrium impurity. Materials and Corrosion - Werkstoffe Und Korrosion, 1989, 40, 552-558. | 1.5 | 21 |
| 196 | Differences in growth mechanisms of oxide scales formed on ODS and conventional wrought alloys. Oxidation of Metals, 1989, 32, 67-88. | 2.1 | 240 |
| 197 | The Effect of Ytria Dispersions on the Growth Mechanisms and Morphology of Chromia and Alumina Scales. , 1989, , 155-173. | | 6 |
| 198 | Influence of sulphur impurity on oxidation behaviour of Niâ€“10Crâ€“9Al in air at 1000Å°C. Materials Science and Technology, 1988, 4, 1119-1125. | 1.6 | 15 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 199 | Influence of sulphur impurity on oxidation behaviour of Ni-10Cr-9Al in air at 1000°C. Materials Science and Technology, 1988, 4, 1119-1125. | 1.6 | 5 |
| 200 | Corrosion and Creep of Nickel-Base Alloys in Steam Reforming Gas. , 1987, , 465-474. | | 9 |
| 201 | Review of high temperature corrosion of metals and alloys in sulphidizing/oxidizing environments I. Corrosion of metals. High Temperature Technology, 1986, 4, 83-96. | 0.3 | 19 |
| 202 | Corrosion behaviour of high temperature alloys in impure helium environments. Journal of Nuclear Materials, 1986, 140, 94-105. | 2.7 | 22 |
| 203 | A Finite Difference Model Describing Carburization in High-Temperature Alloys. Corrosion, 1986, 42, 390-397. | 1.1 | 32 |
| 204 | Corrosion of high temperature alloys in the primary circuit helium of high temperature gas cooled reactors. - Part I: Theoretical background. Materials and Corrosion - Werkstoffe Und Korrosion, 1985, 36, 141-150. | 1.5 | 63 |
| 205 | Corrosion of High Temperature Alloys in the Primary Circuit Helium of High Temperature Gas Cooled Reactors. Part II: Experimental Results. Materials and Corrosion - Werkstoffe Und Korrosion, 1985, 36, 335-347. | 1.5 | 71 |
| 206 | Thermodynamic and Kinetic Aspects of the Corrosion of High-Temperature Alloys in High-Temperature Gas-Cooled Reactor Helium. Nuclear Technology, 1984, 66, 383-391. | 1.2 | 51 |
| 207 | High Temperature Corrosion of FeCrAlY/Aluchrom YHf in Environments Relevant to Exhaust Gas Systems. , 0, , 49-58. | | 5 |
| 208 | Beneficial and Detrimental Effects of Nitrogen on the Oxidation Behaviour of TiAl-Based Intermetallics. , 0, , 275-287. | | 2 |
| 209 | Stress Distribution in APS-TBCs Under Thermal Cycling Loading Conditions. Ceramic Engineering and Science Proceedings, 0, , 73-80. | 0.1 | 2 |
| 210 | Oxidation of Metallic Materials in Simulated CO ₂ /H ₂ O-Rich Service Environments Relevant to an Oxyfuel Plant. Materials Science Forum, 0, 696, 194-199. | 0.3 | 26 |