# Kevin Ogle

List of Publications by Year
in descending order



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|---|---|---|---|
| 96 papers | 4,290 citations | 81889 39 h-index | 118840 62 g-index |
| 96 all docs | 96 docs citations | 96 times ranked | 2435 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Effect of Mn Content on the Passivation and Corrosion of Al0.3Cr0.5Fe2MnxMo0.15Ni1.5Ti0.3 Compositionally Complex Face-Centered Cubic Alloys. Corrosion, 2022, 78, 32-48. | 1.1 | 11 |
| 2 | Spontaneous passivation of the CoCrFeMnNi high entropy alloy in sulfuric acid solution: The effects of alloyed nitrogen and dissolved oxygen. Corrosion Science, 2022, 196, 110016. | 6.6 | 15 |
| 3 | A Tribological and Ion Released Research of Ti-Materials for Medical Devices. Materials, 2022, 15, 131. | 2.9 | 4 |
| 4 | Recent insights in corrosion science from atomic spectroelectrochemistry. Electrochemical Science Advances, 2022, 2, . | 2.8 | 7 |
| 5 | Investigating the Role of Mo and Cr during the Activation and Passivation of Ni-Based Alloys in Acidic Chloride Solution. Journal of the Electrochemical Society, 2021, 168, 021509. | 2.9 | 22 |
| 6 | Potential Dependent Mn Oxidation and Its Role in Passivation of Ni<sub>38</sub>Fe<sub>20</sub>Cr<sub>22</sub>Mn<sub>10</sub>Co<sub>10</sub>Multi-Principal Element Alloy Using Multi-Element Resolved Atomic Emission Spectroelectrochemistry. Journal of the Electrochemical Society, 2021, 168, 051508. | 2.9 | 15 |
| 7 | Transient stainless-steel dissolution and its consequences on ex-situ bipolar plate testing procedures. International Journal of Hydrogen Energy, 2020, 45, 984-995. | 7.1 | 16 |
| 8 | Aqueous passivation of multi-principal element alloy Ni38Fe20Cr22Mn10Co10: Unexpected high Cr enrichment within the passive film. Acta Materialia, 2020, 198, 121-133. | 7.9 | 64 |
| 9 | Zr-based conversion coating on Zn and Zn-Al-Mg alloy coating: Understanding the accelerating effect of Cu(II) and NO3âˆ’. Surface and Coatings Technology, 2020, 402, 126236. | 4.8 | 17 |
| 10 | The contribution of Cr and Mo to the passivation of Ni22Cr and Ni22Cr10Mo alloys in sulfuric acid. Corrosion Science, 2020, 176, 109015. | 6.6 | 39 |
| 11 | Refining anodic and cathodic dissolution mechanisms: combined AESEC-EIS applied to Al-Zn pure phase in alkaline solution. Npj Materials Degradation, 2020, 4, . | 5.8 | 5 |
| 12 | Communicationâ€"Dissolution and Passivation of a Ni-Cr-Fe-Ru-Mo-W High Entropy Alloy by Elementally Resolved Electrochemistry. Journal of the Electrochemical Society, 2020, 167, 061505. | 2.9 | 18 |
| 13 | Effect of added porosity on a novel porous Ti-Nb-Ta-Fe-Mn alloy exposed to simulated body fluid. Materials Science and Engineering C, 2020, 111, 110758. | 7.3 | 13 |
| 14 | Atomic Emission Spectroelectrochemistry: Real-Time Rate Measurements of Dissolution, Corrosion, and Passivation. Corrosion, 2019, 75, 1398-1419. | 1.1 | 55 |
| 15 | Silicon enrichment of an austenitic stainless steel â€" Impact on electrochemical behavior in concentrated nitric acid with oxidizing ions. Electrochimica Acta, 2019, 322, 134703. | 5.2 | 14 |
| 16 | Investigating ion release using inline ICP during in situ scratch testing of an Mg-Li(-Al-Y-Zr) alloy. Electrochemistry Communications, 2019, 99, 46-50. | 4.7 | 24 |
| 17 | The Passivation of Ni-Cr-Mo Alloys: Time Resolved Enrichment and Dissolution of Cr and Mo during Passive-Active Cycles. Journal of the Electrochemical Society, 2019, 166, C3179-C3185. | 2.9 | 34 |
| 18 | Communicationâ€"Hydrogen Evolution and Elemental Dissolution by Combined Gravimetric Method and Atomic Emission Spectroelectrochemistry. Journal of the Electrochemical Society, 2019, 166, C3068-C3070. | 2.9 | 10 |

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| 19 | Molybdenum surface enrichment and release during transpassive dissolution of Ni-based alloys. Corrosion Science, 2019, 147, 32-40. | 6.6 | 55 |
| 20 | Temperature Dependence of the Passivation and Dissolution of Al, Zn, and Î±-Phase Zn-68Al. Corrosion, 2019, 75, 69-79. | 1.1 | 5 |
| 21 | The anodic and cathodic dissolution of Î±-phase Zn-68Al in alkaline media. Corrosion Science, 2019, 148, 1-11. | 6.6 | 12 |
| 22 | Cathodic Dealloying of Î±-Phase Al-Zn in Slightly Alkaline Chloride Electrolyte and Its Consequence for Corrosion Resistance. Journal of the Electrochemical Society, 2018, 165, C334-C342. | 2.9 | 13 |
| 23 | The kinetics of transpassive dissolution chemistry of stainless steels in nitric acid: The impact of Si. Electrochimica Acta, 2017, 258, 653-661. | 5.2 | 26 |
| 24 | Dissolution and Passivation of a Silicon-Rich Austenitic Stainless Steel during Active-Passive Cycles in Sulfuric and Nitric Acid. Journal of the Electrochemical Society, 2017, 164, C892-C900. | 2.9 | 21 |
| 25 | The effect of absorbed hydrogen on the dissolution of steel. Heliyon, 2016, 2, e00209. | 3.2 | 33 |
| 26 | On the effect of Fe concentration on Mg dissolution and activation studied using atomic emission spectroelectrochemistry and scanning electrochemical microscopy. Electrochimica Acta, 2016, 210, 271-284. | 5.2 | 40 |
| 27 | Amino Acid Interleaved Layered Double Hydroxides as Promising Hybrid Materials for AA2024 Corrosion Inhibition. European Journal of Inorganic Chemistry, 2016, 2016, 2006-2016. | 2.0 | 33 |
| 28 | The anodic dissolution of copper alloys: Pure copper in synthetic tap water. Electrochimica Acta, 2016, 191, 548-557. | 5.2 | 27 |
| 29 | Factors Affecting MoO<sub>4</sub><sup>2â€“</sup> Inhibitor Release from Zn<sub>2</sub>Al Based Layered Double Hydroxide and Their Implication in Protecting Hot Dip Galvanized Steel by Means of Organic Coatings. ACS Applied Materials & Interfaces, 2015, 7, 25180-25192. | 8.0 | 83 |
| 30 | Observation of l-cysteine enhanced zinc dissolution during cathodic polarization and its consequences for corrosion rate measurements. Electrochimica Acta, 2015, 184, 203-213. | 5.2 | 15 |
| 31 | Influence of magnesium content on the corrosion resistance of the cut-edges of Znâ€“Mg-coated steel. Corrosion Science, 2015, 97, 100-106. | 6.6 | 29 |
| 32 | MoO42âˆ' as a soluble inhibitor for Zn in neutral and alkaline solutions. Corrosion Science, 2015, 99, 31-41. | 6.6 | 32 |
| 33 | A novel coupling of electrochemical impedance spectroscopy with atomic emission spectroelectrochemistry: Application to the open circuit dissolution of zinc. Electrochimica Acta, 2015, 168, 167-172. | 5.2 | 14 |
| 34 | The effects of l-cysteine on the inhibition and accelerated dissolution processes of zinc metal. Corrosion Science, 2015, 100, 101-112. | 6.6 | 24 |
| 35 | Revisiting the Electrochemical Impedance Spectroscopy of Magnesium with Online Inductively Coupled Plasma Atomic Emission Spectroscopy. ChemPhysChem, 2015, 16, 536-539. | 2.1 | 78 |
| 36 | Corrosion mechanisms of Zn(Mg,Al) coated steel: 2. The effect of Mg and Al alloying on the formation and properties of corrosion products in different electrolytes. Corrosion Science, 2015, 90, 482-490. | 6.6 | 94 |

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|---|---|---|---|
| 37 | Mg Dissolution in Phosphate and Chloride Electrolytes: Insight into the Mechanism of the Negative Difference Effect. Corrosion, 2015, 71, 234-241. | 1.1 | 57 |
| 38 | Corrosion mechanisms of Zn(Mg, Al) coated steel in accelerated tests and natural exposure: 1. The role of electrolyte composition in the nature of corrosion products and relative corrosion rate. Corrosion Science, 2015, 90, 472-481. | 6.6 | 89 |
| 39 | Corrosion mechanisms of Zn(Mg,Al) coated steel: The effect of HCO3âˆ’ and NH4+ ions on the intrinsic reactivity of the coating. Electrochimica Acta, 2015, 153, 159-169. | 5.2 | 40 |
| 40 | Dealloying of Al<sub>2</sub>Cu, Al<sub>7</sub>Cu<sub>2</sub>Fe, and Al<sub>2</sub>CuMg intermetallic phases to form nanoparticulate copper films. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 416-424. | 1.5 | 48 |
| 41 | The effect of synthetic zinc corrosion products on corrosion of electrogalvanized steel. II. Zinc reactivity and galvanic coupling zinc/steel in presence of zinc corrosion products. Corrosion Science, 2014, 83, 32-37. | 6.6 | 38 |
| 42 | Anticorrosion mechanisms of aluminized steel for hot stamping. Surface and Coatings Technology, 2014, 238, 188-196. | 4.8 | 66 |
| 43 | The effect of synthetic zinc corrosion products on corrosion of electrogalvanized steel: I. Cathodic reactivity under zinc corrosion products. Corrosion Science, 2014, 81, 11-20. | 6.6 | 44 |
| 44 | Adsorption and electroreduction of hematite particles on steel in strong alkaline media. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 440, 197-201. | 4.7 | 12 |
| 45 | Surface potential of hematite particles in high concentration electrolytes: Electroacoustic measurements and suspension stability. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 443, 338-344. | 4.7 | 9 |
| 46 | On the cathodic dissolution of Al and Al alloys. Electrochimica Acta, 2014, 124, 9-16. | 5.2 | 42 |
| 47 | A novel approach to on-line measurement of gas evolution kinetics: Application to the negative difference effect of Mg in chloride solution. Electrochimica Acta, 2014, 124, 176-182. | 5.2 | 98 |
| 48 | The effect of an artificially synthesized simonkolleite layer on the corrosion of electrogalvanized steel. Corrosion Science, 2013, 70, 1-10. | 6.6 | 50 |
| 49 | The effect of pH on the selective dissolution of Zn and Al from Znâ€“Al coatings on steel. Corrosion Science, 2013, 67, 42-49. | 6.6 | 67 |
| 50 | On the Origin of the Second Anodic Peak During the Polarization of Stainless Steel in Sulfuric Acid. Corrosion, 2013, 69, 536-542. | 1.1 | 8 |
| 51 | Aqueous Corrosion of Mg-Al Binary Alloys: Roles of Al and Mg. Corrosion, 2012, 68, 557-570. | 1.1 | 33 |
| 52 | The initial release of zinc and aluminum from non-treated Galvalume and the formation of corrosion products in chloride containing media. Applied Surface Science, 2012, 258, 4351-4359. | 6.1 | 35 |
| 53 | The degradation of phosphate conversion coatings by electrochemically generated hydroxide. Corrosion Science, 2012, 55, 76-89. | 6.6 | 29 |
| 54 | Activation and inhibition of Znâ€“Al and Znâ€“Alâ€“Mg coatings on steel by nitrate in phosphoric acid solution. Corrosion Science, 2012, 60, 256-264. | 6.6 | 38 |

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| 55 | Reliability of numerical models for simulating galvanic corrosion processes. Electrochimica Acta, 2012, 82, 349-355. | 5.2 | 47 |
| 56 | The anodic dissolution of zinc and zinc alloys in alkaline solution. II. Al and Zn partial dissolution from 5% Alâ€"Zn coatings. Electrochimica Acta, 2012, 74, 130-138. | 5.2 | 47 |
| 57 | Atomic emission spectroelectrochemistry study of the degradation mechanism of model high-temperature paint containing sacrificial aluminum particles. Surface and Coatings Technology, 2012, 206, 2133-2139. | 4.8 | 18 |
| 58 | An atomic emission spectroelectrochemical study of passive film formation and dissolution on galvanized steel treated with silicate conversion coatings. Surface and Coatings Technology, 2012, 206, 3151-3157. | 4.8 | 33 |
| 59 | Modeling bimetallic corrosion under thin electrolyte films. Corrosion Science, 2011, 53, 201-207. | 6.6 | 76 |
| 60 | An atomic emission spectroelectrochemical study of corrosion inhibition: The effect of hexamethylenetetramine on the reaction of mild steel in HCl. Corrosion Science, 2011, 53, 1362-1368. | 6.6 | 21 |
| 61 | Understanding corrosion via corrosion product characterization: II. Role of alloying elements in improving the corrosion resistance of Znâ€"Alâ€"Mg coatings on steel. Corrosion Science, 2011, 53, 2437-2445. | 6.6 | 174 |
| 62 | Protective mechanisms occurring on zinc coated steel cut-edges in immersion conditions. Electrochimica Acta, 2011, 56, 8347-8357. | 5.2 | 69 |
| 63 | Dissolution and passive film formation of Sn and Sn coated steel using atomic emission spectroelectrochemistry. Electrochimica Acta, 2011, 58, 322-329. | 5.2 | 12 |
| 64 | An SKP and EIS investigation of amine adsorption on zinc oxide surfaces. Surface and Interface Analysis, 2011, 43, 1286-1298. | 1.8 | 13 |
| 65 | The cathodic dissolution of Al, Al2Cu, and Al alloys. Electrochimica Acta, 2011, 56, 1711-1718. | 5.2 | 52 |
| 66 | Atomic emission spectroelectrochemical investigation of the anodization of AA7050T74 aluminum alloy. Electrochemistry Communications, 2011, 13, 42-45. | 4.7 | 14 |
| 67 | Atomic emission spectroelectrochemistry applied to dealloying phenomena II. Selective dissolution of iron and chromium during activeâ€"passive cycles of an austenitic stainless steel. Electrochimica Acta, 2010, 55, 913-921. | 5.2 | 52 |
| 68 | The anodic and cathodic dissolution of Al and Alâ€"Cuâ€"Mg alloy. Electrochimica Acta, 2010, 55, 3779-3786. | 5.2 | 81 |
| 69 | The anodic dissolution of zinc and zinc alloys in alkaline solution. I. Oxide formation on electrogalvanized steel. Electrochimica Acta, 2010, 55, 7867-7875. | 5.2 | 77 |
| 70 | The Adsorption of Hematite Particles on Steel in Strongly Alkaline Electrolyte. Journal of the Electrochemical Society, 2010, 157, E24. | 2.9 | 23 |
| 71 | The anodic dissolution of Mg in NaCl and Na2SO4 electrolytes by atomic emission spectroelectrochemistry. Corrosion Science, 2010, 52, 2372-2378. | 6.6 | 112 |
| 72 | Molecular modelling by DFT of 1,2-diaminoethane adsorbed on the Zn-terminated and O-terminated, anhydrous and hydroxylated ZnO (0001) surface. Superlattices and Microstructures, 2009, 46, 19-24. | 3.1 | 20 |

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| 73 | Atomic emission spectroelectrochemistry applied to dealloying phenomena: I. The formation and dissolution of residual copper films on stainless steel. Electrochimica Acta, 2009, 54, 5163-5170. | 5.2 | 77 |
| 74 | Understanding corrosion via corrosion product characterization: I. Case study of the role of Mg alloying in Znâ€“Mg coating on steel. Corrosion Science, 2009, 51, 1251-1262. | 6.6 | 210 |
| 75 | Investigations of Cut-edge Corrosion of Galvanized Steels by the Scanning Vibrating Electrode Technique. ECS Transactions, 2008, 11, 91-105. | 0.5 | 19 |
| 76 | Investigation of self-healing mechanism on galvanized steels cut edges by coupling SVET and numerical modeling. Electrochimica Acta, 2008, 53, 5226-5234. | 5.2 | 122 |
| 77 | Adsorption of 1,2-diaminoethane on ZnO thin films from p-xylene. Applied Surface Science, 2008, 254, 5530-5539. | 6.1 | 31 |
| 78 | Impedance characterization of the electrochemical environment under a polymer film artificially delaminated. Electrochimica Acta, 2008, 53, 6484-6488. | 5.2 | 4 |
| 79 | A Mathematical Model for Cathodic Delamination of Coated Metal Including a Kinetic pHâ€“Porosity Relationship. Journal of the Electrochemical Society, 2008, 155, C279. | 2.9 | 20 |
| 80 | Predictive Model for Cut-Edge Corrosion of Galvanized Steels. ECS Transactions, 2007, 3, 343-353. | 0.5 | 6 |
| 81 | Mathematical model for cathodic delamination using a porosityâ€“pH relationship. Corrosion Science, 2007, 49, 3638-3658. | 6.6 | 25 |
| 82 | The acidâ€“base properties of the surface of native zinc oxide layers: An XPS study of adsorption of 1,2-diaminoethane. Applied Surface Science, 2007, 253, 6860-6867. | 6.1 | 120 |
| 83 | An electrochemical study of the delamination of polymer coatings on galvanized steel. Corrosion Science, 2005, 47, 2034-2052. | 6.6 | 63 |
| 84 | The alkaline stability of phosphate coatings I: ICP atomic emission spectroelectrochemistry. Corrosion Science, 2004, 46, 979-995. | 6.6 | 93 |
| 85 | The alkaline stability of phosphate coatings II: in situ Raman spectroscopy. Corrosion Science, 2004, 46, 997-1011. | 6.6 | 57 |
| 86 | Investigation of zinc chromatation. I. Application of QCMâ€“ICP coupling. Electrochimica Acta, 2003, 48, 965-976. | 5.2 | 24 |
| 87 | Investigation of zinc chromatation. Electrochimica Acta, 2003, 48, 1483-1490. | 5.2 | 23 |
| 88 | Passivation of Feâ€“Cr alloys studied with ICP-AES and EQCM. Corrosion Science, 2002, 44, 1443-1456. | 6.6 | 96 |
| 89 | Anodic Dissolution of 304 Stainless Steel Using Atomic Emission Spectroelectrochemistry. Journal of the Electrochemical Society, 2000, 147, 1770. | 2.9 | 131 |
| 90 | Localized Electrochemical Methods Applied to Cut Edge Corrosion. Journal of the Electrochemical Society, 2000, 147, 3654. | 2.9 | 142 |

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| 91 | In Situ Monitoring of Phosphatation Reactions on Zn Using the Quartz Crystal Microbalance. Journal of the Electrochemical Society, 1994, 141, 2655-2658. | 2.9 | 11 |
| 92 | Isotope effects in water formation on Pt(111). Surface Science, 1986, 169, 425-437. | 1.9 | 20 |
| 93 | Hydrogen isotope exchange in alkylidynes on Pt(111). Surface Science, 1986, 165, 234-250. | 1.9 | 25 |
| 94 | The formation and decomposition kinetics of alkylidynes on Pt(111). Surface Science, 1986, 169, 246-266. | 1.9 | 79 |
| 95 | The low temperature water formation reaction on Pt(111): A static SIMS and TDS study. Surface Science, 1984, 139, 43-62. | 1.9 | 100 |
| 96 | Direct observation of hydrogen-deuterium exchange in ethylidyne adsorbed on Pt(111). Surface Science, 1984, 138, L137-L141. | 1.9 | 31 |