

# Fan Zhang

## List of Publications by Year in descending order

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Version: 2024-02-01

45  
papers

1,476  
citations

361413

20  
h-index

330143

37  
g-index

45  
all docs

45  
docs citations

45  
times ranked

1348  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Multidimensional insights into the corrosion inhibition of 3,3-dithiodipropionic acid on Q235 steel in H <sub>2</sub> SO <sub>4</sub> medium: A combined experimental and in silico investigation. <i>Journal of Colloid and Interface Science</i> , 2020, 570, 116-124. | 9.4  | 193       |
| 2  | The thickness of native oxides on aluminum alloys and single crystals. <i>Applied Surface Science</i> , 2015, 349, 826-832.  | 6.1  | 174       |
| 3  | Layered double hydroxide (LDH) for multi-functionalized corrosion protection of metals: A review. <i>Journal of Materials Science and Technology</i> , 2022, 102, 232-263.   | 10.7 | 112       |
| 4  | Localized corrosion behaviour of reinforcement steel in simulated concrete pore solution. <i>Corrosion Science</i> , 2009, 51, 2130-2138.  | 6.6  | 102       |
| 5  | Electrochemical and AFM studies of mussel adhesive protein (Mefp-1) as corrosion inhibitor for carbon steel. <i>Electrochimica Acta</i> , 2011, 56, 1636-1645.   | 5.2  | 87        |
| 6  | Synergistic effect of potassium iodide and sodium dodecyl sulfonate on the corrosion inhibition of carbon steel in HCl medium: a combined experimental and theoretical investigation. <i>RSC Advances</i> , 2020, 10, 15163-15170.                                       | 3.6  | 85        |
| 7  | Real-Time and Online Lubricating Oil Condition Monitoring Enabled by Triboelectric Nanogenerator. <i>ACS Nano</i> , 2021, 15, 11869-11879.   | 14.6 | 56        |
| 8  | In Situ and Operando AFM and EIS Studies of Anodization of Al 6060: Influence of Intermetallic Particles. <i>Journal of the Electrochemical Society</i> , 2016, 163, C609-C618.  | 2.9  | 48        |
| 9  | Enhanced corrosion protection by Al surface immobilization of in-situ grown layered double hydroxide films co-intercalated with inhibitors and low surface energy species. <i>Corrosion Science</i> , 2020, 164, 108340.   | 6.6  | 48        |
| 10 | Influence of Cr doping on the oxygen evolution potential of SnO <sub>2</sub> /Ti and Sb-SnO <sub>2</sub> /Ti electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2019, 832, 436-443.   | 3.8  | 37        |
| 11 | In situ confocal Raman micro-spectroscopy and electrochemical studies of mussel adhesive protein and ceria composite film on carbon steel in salt solutions. <i>Electrochimica Acta</i> , 2013, 107, 276-291.  | 5.2  | 31        |
| 12 | Anodisation of aluminium alloy AA7075 – Influence of intermetallic particles on anodic oxide growth. <i>Corrosion Science</i> , 2020, 164, 108319.   | 6.6  | 31        |
| 13 | Electrochemical and Computational Studies on the Corrosion Inhibition of Mild Steel by 1-Hexadecyl-3-methylimidazolium Bromide in HCl Medium. <i>International Journal of Electrochemical Science</i> , 2020, 15, 1893-1903.   | 1.3  | 29        |
| 14 | In situ investigations of Fe <sup>3+</sup> induced complexation of adsorbed Mefp-1 protein film on iron substrate. <i>Journal of Colloid and Interface Science</i> , 2013, 404, 62-71.   | 9.4  | 28        |
| 15 | A Composite Corrosion Inhibitor of MgAl Layered Double Hydroxides Co-Intercalated with Hydroxide and Organic Anions for Carbon Steel in Simulated Carbonated Concrete Pore Solutions. <i>Journal of the Electrochemical Society</i> , 2019, 166, C3106-C3113.            | 2.9  | 24        |
| 16 | Thin Composite Films of Mussel Adhesive Proteins and Ceria Nanoparticles on Carbon Steel for Corrosion Protection. <i>Journal of the Electrochemical Society</i> , 2012, 159, C364-C371.   | 2.9  | 23        |
| 17 | Mussel-Inspired Graphene Film with Enhanced Durability as a Macroscale Solid Lubricant. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 31386-31392.   | 8.0  | 22        |
| 18 | Characterization of Native Oxide and Passive Film on Austenite/Ferrite Phases of Duplex Stainless Steel Using Synchrotron HAXPEEM. <i>Journal of the Electrochemical Society</i> , 2019, 166, C3336-C3340.   | 2.9  | 22        |

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|----|---|------|-----------|
| 19 | Investigation and application of mussel adhesive protein nanocomposite film-forming inhibitor for reinforced concrete engineering. <i>Corrosion Science</i> , 2019, 153, 333-340.   | 6.6  | 22        |
| 20 | Corrosion- and wear-resistant composite film of graphene and mussel adhesive proteins on carbon steel. <i>Corrosion Science</i> , 2020, 164, 108351.  | 6.6  | 22        |
| 21 | Lateral variation of the native passive film on super duplex stainless steel resolved by synchrotron hard X-ray photoelectron emission microscopy. <i>Corrosion Science</i> , 2020, 174, 108841.  | 6.6  | 22        |
| 22 | Corrosion Protection and Self-Healing of a Nanocomposite Film of Mussel Adhesive Protein and CeO <sub>2</sub> Nanoparticles on Carbon Steel. <i>Journal of the Electrochemical Society</i> , 2016, 163, C545-C552.  | 2.9  | 20        |
| 23 | Integration of electrochemical and synchrotron-based X-ray techniques for in-situ investigation of aluminum anodization. <i>Electrochimica Acta</i> , 2017, 241, 299-308.   | 5.2  | 19        |
| 24 | Electrochemical, atomic force microscopy and infrared reflection absorption spectroscopy studies of pre-formed mussel adhesive protein films on carbon steel for corrosion protection. <i>Thin Solid Films</i> , 2012, 520, 7136-7143.                            | 1.8  | 18        |
| 25 | Effects of surface micro-structures on capacitances of the dielectric layer in triboelectric nanogenerator: A numerical simulation study. <i>Nano Energy</i> , 2021, 79, 105432.  | 16.0 | 18        |
| 26 | Corrosion mechanism of CuAl-NiC abrasable seal coating system—The influence of porosity, multiphase, and multilayer structure on the corrosion failure. <i>Journal of Materials Science and Technology</i> , 2021, 88, 258-269.                                   | 10.7 | 18        |
| 27 | Review on Life Cycle of Parabens: Synthesis, Degradation, Characterization and Safety Analysis. <i>Current Organic Chemistry</i> , 2018, 22, 769-779.   | 1.6  | 18        |
| 28 | <i>In situ</i> anodization of aluminum surfaces studied by x-ray reflectivity and electrochemical impedance spectroscopy. <i>Journal of Applied Physics</i> , 2014, 116, .  | 2.5  | 17        |
| 29 | Insight into the Fabrication of ZnAl Layered Double Hydroxides Intercalated with Organic Anions and Their Corrosion Protection of Steel Reinforced Concrete. <i>Journal of the Electrochemical Society</i> , 2019, 166, C617-C623.                                | 2.9  | 16        |
| 30 | Corrosion inhibition of pre-formed mussel adhesive protein (Mefp-1) film to magnesium alloy. <i>Corrosion Science</i> , 2020, 164, 108309.  | 6.6  | 15        |
| 31 | Corrosion-induced microstructure degradation of copper in sulfide-containing simulated anoxic groundwater studied by synchrotron high-energy X-ray diffraction and ab-initio density functional theory calculation. <i>Corrosion Science</i> , 2021, 184, 109390. | 6.6  | 15        |
| 32 | Metastable precursor structures in hydrogen-infused super duplex stainless steel microstructure — An operando diffraction experiment. <i>Corrosion Science</i> , 2020, 176, 109021.   | 6.6  | 14        |
| 33 | Operando time- and space-resolved high-energy X-ray diffraction measurement to understand hydrogen-microstructure interactions in duplex stainless steel. <i>Corrosion Science</i> , 2020, 175, 108899.   | 6.6  | 10        |
| 34 | Recent Development of Corrosion Protection Strategy Based on Mussel Adhesive Protein. <i>Frontiers in Materials</i> , 2019, 6, .  | 2.4  | 9         |
| 35 | Time-resolved grazing-incidence X-ray diffraction measurement to understand the effect of hydrogen on surface strain development in super duplex stainless steel. <i>Scripta Materialia</i> , 2020, 187, 63-67.   | 5.2  | 8         |
| 36 | Corrosion Inhibition of Two Brass Alloys by Octadecanethiol in Humidified Air with Formic Acid. <i>Corrosion</i> , 2015, 71, 908-917.   | 1.1  | 6         |

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|----|---|-----|-----------|
| 37 | Tunable Adsorption and Film Formation of Mussel Adhesive Protein by Potential Control. <i>Langmuir</i> , 2017, 33, 8749-8756.   | 3.5 | 6         |
| 38 | Heating-Induced Enhancement of Corrosion Protection of Carbon Steel by a Nanocomposite Film Containing Mussel Adhesive Protein. <i>Journal of the Electrochemical Society</i> , 2017, 164, C188-C193.   | 2.9 | 6         |
| 39 | Gravity on Crystallization of Lysozyme: Slower or Faster?. <i>Crystal Growth and Design</i> , 2019, 19, 7402-7410.  | 3.0 | 6         |
| 40 | Hydrogen-Induced Micro-Strain Evolution in Super Duplex Stainless Steel—Correlative High-Energy X-Ray Diffraction, Electron Backscattered Diffraction, and Digital Image Correlation. <i>Frontiers in Materials</i> , 2022, 8, .  | 2.4 | 6         |
| 41 | Temperature effect on mechanical strength and frictional properties of polytetrafluoroethylene-based core-shell nanocomposites. <i>Journal of Applied Polymer Science</i> , 2021, 138, 49929.   | 2.6 | 5         |
| 42 | Solubility and thermodynamic properties of N-phenylanthranilic acid in Water+Methanol/Ethanol/tert-butanol binary solvents from 283.15K to 323.15K. <i>Journal of Chemical Thermodynamics</i> , 2022, 168, 106748.  | 2.0 | 4         |
| 43 | Interactions in Composite Film Formation of Mefp-1/graphene on Carbon Steel. <i>Coatings</i> , 2021, 11, 1161.  | 2.6 | 2         |
| 44 | Reply to Comment on “Corrosion-induced microstructure degradation of copper in sulfide-containing simulated anoxic groundwater studied by synchrotron high-energy X-ray diffraction and ab-initio density functional theory calculation”. <i>Corrosion Science</i> , 2022, 199, 110183. | 6.6 | 2         |
| 45 | 2-Cyanopyridine as a corrosion inhibitor for mild steel: An in silico study. <i>AIP Conference Proceedings</i> , 2020, , .  | 0.4 | 0         |