# Jafar Khalil-Allafi

List of Publications by Year
in descending order



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|---|---|---|---|
| 66 papers | 2,362 citations | 201575 27 h-index | 223716 46 g-index |
| 66 all docs | 66 docs citations | 66 times ranked | 1649 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The microstructural features and corrosion behavior of Hydroxyapatite/ZnO nanocomposite electrodeposit on NiTi alloy: Effect of current density. Ceramics International, 2022, 48, 2191-2202. | 2.3 | 12 |
| 2 | Multiwalled-carbon nanotubes reinforced hydroxyapatite- tantalum pentoxide nanocomposite coating on Nitinol alloy: Antibacterial activity and Electrochemical properties. Surfaces and Interfaces, 2022, 29, 101773. | 1.5 | 5 |
| 3 | Progress in Niobium Oxide-Containing Coatings for Biomedical Applications: A Critical Review. ACS Omega, 2022, 7, 9088-9107. | 1.6 | 28 |
| 4 | Biocompatibility and antibacterial behavior of electrochemically deposited Hydroxyapatite/ZnO porous nanocomposite on NiTi biomedical alloy. Ceramics International, 2022, 48, 16326-16336. | 2.3 | 24 |
| 5 | On the determination of the volume fraction of Ni<sub>4</sub>Ti<sub>3</sub> precipitates in binary Ni-rich NiTi shape memory alloys. International Journal of Materials Research, 2022, 95, 518-524. | 0.1 | 0 |
| 6 | Additive Manufacturing: An Opportunity for the Fabrication of Near-Net-Shape NiTi Implants. Journal of Manufacturing and Materials Processing, 2022, 6, 65. | 1.0 | 20 |
| 7 | Corrosion behaviour of TiC/N coating prepared by plasma electrolytic saturation on NiTi. Surface Engineering, 2021, 37, 197-205. | 1.1 | 4 |
| 8 | RF-magnetron sputter deposited hydroxyapatite-based composite & multilayer coatings: A systematic review from mechanical, corrosion, and biological points of view. Ceramics International, 2021, 47, 3031-3053. | 2.3 | 60 |
| 9 | Enhanced corrosion protection of NiTi orthopedic implants by highly crystalline hydroxyapatite deposited by spin coating: The importance of pre-treatment. Materials Chemistry and Physics, 2021, 259, 124041. | 2.0 | 39 |
| 10 | Electrodeposited Hydroxyapatite-Based Biocoatings: Recent Progress and Future Challenges. Coatings, 2021, 11, 110. | 1.2 | 74 |
| 11 | A survey on crystallization kinetic behavior of direct current magnetron sputter deposited NiTi thin films. Physica B: Condensed Matter, 2021, 615, 413086. | 1.3 | 14 |
| 12 | The study of morphological evolution, biocorrosion resistance, and bioactivity of pulse electrochemically deposited Hydroxyapatite/ZnO composite on NiTi superelastic alloy. Surface and Coatings Technology, 2021, 423, 127628. | 2.2 | 9 |
| 13 | Microstructural characterization and quantitative phase analysis of Ni-rich NiTi after stress assisted aging for long times using the Rietveld method. Materials Chemistry and Physics, 2020, 241, 122317. | 2.0 | 22 |
| 14 | Structural characterization, mechanical, and electrochemical studies of hydroxyapatiteâ€titanium composite coating fabricated using electrophoretic deposition and reaction bonding process. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 2119-2130. | 1.6 | 11 |
| 15 | A facile and cost-effective practical approach to develop clinical applications of NiTi: Fenton oxidation process. Transactions of the Institute of Metal Finishing, 2020, 98, 250-257. | 0.6 | 22 |
| 16 | In Vitro Biological Characterization of Natural Hydroxyapatite/Single-Walled Carbon Nanotube Composite Coatings Synthesized by Electrophoretic Deposition on NiTi Shape Memory Alloy. Journal of Materials Engineering and Performance, 2020, 29, 6170-6180. | 1.2 | 5 |
| 17 | Characteristics and tribological behavior of the hard anodized 6061-T6 Al alloy. Journal of Alloys and Compounds, 2020, 842, 155988. | 2.8 | 20 |
| 18 | Pulsed electrodeposition of compact, corrosion resistant, and bioactive HAp coatings by application of optimized magnetic field. Materials Chemistry and Physics, 2020, 254, 123511. | 2.0 | 28 |

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|---|---|---|---|
| 19 | Influence of tantalum pentoxide secondary phase on surface features and mechanical properties of hydroxyapatite coating on NiTi alloy produced by electrophoretic deposition. Surface and Coatings Technology, 2020, 386, 125458. | 2.2 | 31 |
| 20 | The effect of annealing temperature on microstructure and mechanical properties of dissimilar laser welded superelastic NiTi to austenitic stainless steels orthodontic archwires. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 109, 103818. | 1.5 | 13 |
| 21 | Evaluating superelastic and shape memory effects using the photostress technique. Materials Today Communications, 2020, 24, 101156. | 0.9 | 3 |
| 22 | The effect of hydroxyapatite nanoparticles on electrochemical and mechanical performance of TiC/N coating fabricated by plasma electrolytic saturation method. Surface and Coatings Technology, 2020, 394, 125817. | 2.2 | 16 |
| 23 | In-situ formation of TiN-TiO2 composite layer on NiTi shape memory alloy via fluidized bed reactor. Ceramics International, 2020, 46, 21097-21106. | 2.3 | 15 |
| 24 | In-vitro biological behavior of calcium phosphate coating applied on nanostructure surface of anodized Nitinol alloy. Materials Research Express, 2019, 6, 095407. | 0.8 | 13 |
| 25 | Electrophoretic deposition and characterization of bioglass-whisker hydroxyapatite nanocomposite coatings on titanium substrate. Surface and Coatings Technology, 2019, 378, 124949. | 2.2 | 16 |
| 26 | Effect of hydroxyapatiteâ€titaniumâ€MWCNTs composite coating fabricated by electrophoretic deposition on corrosion and cellular behavior of NiTi alloy. Materials and Corrosion - Werkstoffe Und Korrosion, 2019, 70, 2128-2138. | 0.8 | 17 |
| 27 | Biomechanical compatibility and electrochemical stability of HA/Ta2O5 nanocomposite coating produced by electrophoretic deposition on superelastic NiTi alloy. Journal of Alloys and Compounds, 2019, 799, 193-204. | 2.8 | 22 |
| 28 | Effect of Ta2O5 content on the osseointegration and cytotoxicity behaviors in hydroxyapatite-Ta2O5 coatings applied by EPD on superelastic NiTi alloys. Materials Science and Engineering C, 2019, 102, 683-695. | 3.8 | 42 |
| 29 | Characterization of hydroxyapatite-tantalum pentoxide nanocomposite coating applied by electrophoretic deposition on Nitinol superelastic alloy. Ceramics International, 2019, 45, 10448-10460. | 2.3 | 18 |
| 30 | Characterization, mechanical and in vitro biological behavior of hydroxyapatiteâ€'titaniumâ€'carbon nanotube composite coatings deposited on NiTi alloy by electrophoretic deposition. Surface and Coatings Technology, 2019, 363, 179-190. | 2.2 | 51 |
| 31 | Development of graphene oxide/calcium phosphate coating by pulse electrodeposition on anodized titanium: Biocorrosion and mechanical behavior. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 575-586. | 1.5 | 58 |
| 32 | Biocompatibility assessment of graphene oxide-hydroxyapatite coating applied on TiO 2 nanotubes by ultrasound-assisted pulse electrodeposition. Materials Science and Engineering C, 2018, 87, 10-21. | 3.8 | 62 |
| 33 | The effect of graphene oxide on surface features, biological performance and bio-stability of calcium phosphate coating applied by pulse electrochemical deposition. Applied Surface Science, 2018, 437, 122-135. | 3.1 | 42 |
| 34 | Influence of stress aging process on variants of nano-Ni4Ti3 precipitates and martensitic transformation temperatures in NiTi shape memory alloy. Materials and Design, 2018, 142, 93-100. | 3.3 | 30 |
| 35 | Effect of employing ultrasonic waves during pulse electrochemical deposition on the characteristics and biocompatibility of calcium phosphate coatings. Ultrasonics Sonochemistry, 2018, 42, 293-302. | 3.8 | 30 |
| 36 | Preparation, Characterization, and Corrosion Behavior of Calcium Phosphate Coating Electrodeposited on the Modified Nanoporous Surface of NiTi Alloy for Biomedical Applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5878-5887. | 1.1 | 22 |

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|---|---|---|---|
| 37 | Fabrication of aluminum foams by using CaCO3 foaming agent. Materials Research Express, 2018, 5, 096526. | 0.8 | 6 |
| 38 | Tuning surface morphology and crystallinity of anodic TiO2 nanotubes and their response to biomimetic bone growth for implant applications. Surface and Coatings Technology, 2017, 315, 163-171. | 2.2 | 30 |
| 39 | Characterization and corrosion behavior of graphene oxide-hydroxyapatite composite coating applied by ultrasound-assisted pulse electrodeposition. Ceramics International, 2017, 43, 13885-13894. | 2.3 | 38 |
| 40 | On the electrocrystallization of pure hydroxyapatite nanowalls on Nitinol alloy using a bipolar pulsed current. Journal of Alloys and Compounds, 2016, 678, 549-555. | 2.8 | 18 |
| 41 | Preparing hydroxyapatite-silicon composite suspensions with homogeneous distribution of multi-walled carbon nano-tubes for electrophoretic coating of NiTi bone implant and their effect on the surface morphology. Applied Surface Science, 2016, 366, 158-165. | 3.1 | 29 |
| 42 | On the Electrodeposition of Ca-P Coatings on Nitinol Alloy: A Comparison Between Different Surface Modification Methods. Journal of Materials Engineering and Performance, 2016, 25, 466-473. | 1.2 | 24 |
| 43 | Endothelialization and the bioactivity of Ca-P coatings of different Ca/P stoichiometry electrodeposited on the Nitinol superelastic alloy. Materials Science and Engineering C, 2016, 62, 28-35. | 3.8 | 33 |
| 44 | Characterization of mechanical properties of hydroxyapatiteâ€“siliconâ€“multi walled carbon nano tubes composite coatings synthesized by EPD on NiTi alloys for biomedical application. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 337-352. | 1.5 | 37 |
| 45 | The influence of Si as reactive bonding agent in the electrophoretic coatings of HAâ€“Siâ€“MWCNTs on NiTi alloys. Journal of Materials Engineering and Performance, 2016, 25, 390-400. | 1.2 | 20 |
| 46 | Electrophoretic deposition of double-layer HA/Al composite coating on NiTi. Materials Science and Engineering C, 2016, 58, 882-890. | 3.8 | 35 |
| 47 | Tensile properties and interfacial bonding of multi-layered, high-purity titanium strips fabricated by ARB process. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 51, 147-153. | 1.5 | 10 |
| 48 | Seismic retrofit in building structures using shape memory alloys. KSCE Journal of Civil Engineering, 2015, 19, 935-942. | 0.9 | 2 |
| 49 | Effect of hydroxyapatite coating fabricated by electrophoretic deposition method on corrosion behavior and nickel release of NiTi shape memory alloy. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 725-732. | 0.8 | 27 |
| 50 | Characterisation of HAâ€“Si composite coatings on NiTi for biomedical applications. Surface Engineering, 2014, 30, 212-217. | 1.1 | 13 |
| 51 | Influence of recrystallization and subsequent aging treatment on superelastic behavior and martensitic transformation of Ni50.9Ti wires. Journal of Alloys and Compounds, 2014, 582, 348-354. | 2.8 | 14 |
| 52 | Influence of Aging Treatment on In-Situ Electrical Resistance Variation During Aging of Nickel-Rich NiTi Shape Memory Wires. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 4429-4433. | 1.1 | 2 |
| 53 | Effect of short-time annealing treatment on the superelastic behavior of cold drawn Ni-rich NiTi shape memory wires. Journal of Alloys and Compounds, 2013, 554, 32-38. | 2.8 | 38 |
| 54 | Investigation of the recovery and recrystallization processes of Ni50.9Ti49.1 shape memory wires using in situ electrical resistance measurement. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 551, 122-127. | 2.6 | 30 |

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| 55 | Hydroxyapatite coating on NiTi shape memory alloy by electrophoretic deposition process. Surface and Coatings Technology, 2012, 208, 57-63. | 2.2 | 54 |
| 56 | Influence of Mold Preheating and Silicon Content on Microstructure and Casting Properties of Ductile Iron in Permanent Mold. Journal of Iron and Steel Research International, 2011, 18, 34-39. | 1.4 | 22 |
| 57 | Effect of Mold Hardness on Microstructure and Contraction Porosity in Ductile Cast Iron. Journal of Iron and Steel Research International, 2011, 18, 44-47. | 1.4 | 5 |
| 58 | Multiple-step martensitic transformations in the Ni51Ti49 single crystal. Journal of Materials Science, 2010, 45, 6440-6445. | 1.7 | 9 |
| 59 | Biocompatibility and corrosion behavior of the shape memory NiTi alloy in the physiological environments simulated with body fluids for medical applications. Materials Science and Engineering C, 2010, 30, 1112-1117. | 3.8 | 65 |
| 60 | The influence of Ni4Ti3 precipitates orientation on two-way shape memory effect in a Ni-rich NiTi alloy. Journal of Alloys and Compounds, 2009, 485, 320-323. | 2.8 | 24 |
| 61 | The effect of chemical composition on enthalpy and entropy changes of martensitic transformations in binary NiTi shape memory alloys. Journal of Alloys and Compounds, 2009, 487, 363-366. | 2.8 | 62 |
| 62 | Quantitative phase analysis in microstructures which display multiple step martensitic transformations in Ni-rich NiTi shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 438-440, 593-596. | 2.6 | 50 |
| 63 | On the effect of aging on martensitic transformations in Ni-rich NiTi shape memory alloys. Smart Materials and Structures, 2005, 14, S186-S191. | 1.8 | 46 |
| 64 | On the determination of the volume fraction of Ni<sub>4</sub>Ti<sub>3</sub>precipitates in binary Ni-rich NiTi shape memory alloys. International Journal of Materials Research, 2004, 95, 518-524. | 0.8 | 16 |
| 65 | Multiple-step martensitic transformations in Ni-rich NiTi alloys--an in-situ transmission electron microscopy investigation. Philosophical Magazine, 2003, 83, 339-363. | 0.7 | 134 |
| 66 | Ni4Ti3-precipitation during aging of NiTi shape memory alloys and its influence on martensitic phase transformations. Acta Materialia, 2002, 50, 4255-4274. | 3.8 | 571 |