# Erfan Dashtimoghadam

List of Publications by Year
in descending order

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|---|---|---|---|
| 68 papers | 2,599 citations | 109321 35 h-index | 197818 49 g-index |
| 69 all docs | 69 docs citations | 69 times ranked | 3237 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Injectable bottlebrush hydrogels with tissue-mimetic mechanical properties. Science Advances, 2022, 8, eabm2469. | 10.3 | 53 |
| 2 | Immunomodulatory microneedle patch for periodontal tissue regeneration. Matter, 2022, 5, 666-682. | 10.0 | 49 |
| 3 | Brush Architecture and Network Elasticity: Path to the Design of Mechanically Diverse Elastomers. Macromolecules, 2022, 55, 2940-2951. | 4.8 | 16 |
| 4 | Engineered Delivery of Dental Stemâ€Cellâ€Derived Extracellular Vesicles for Periodontal Tissue Regeneration. Advanced Healthcare Materials, 2022, 11, e2102593. | 7.6 | 15 |
| 5 | Mechanically Diverse Gels with Equal Solvent Content. ACS Central Science, 2022, 8, 845-852. | 11.3 | 10 |
| 6 | Comparison of osteogenic differentiation potential of induced pluripotent stem cells and buccal fat pad stem cells on 3D-printed HA/Î²-TCP collagen-coated scaffolds. Cell and Tissue Research, 2021, 384, 403-421. | 2.9 | 13 |
| 7 | Osteogenic differentiation of adipose-derived mesenchymal stem cells using 3D-Printed PDLLA/ Î²-TCP nanocomposite scaffolds. Bioprinting, 2021, 21, e00117. | 5.8 | 10 |
| 8 | Injectable non-leaching tissue-mimetic bottlebrush elastomers as an advanced platform for reconstructive surgery. Nature Communications, 2021, 12, 3961. | 12.8 | 32 |
| 9 | Regulating Tissue-Mimetic Mechanical Properties of Bottlebrush Elastomers by Magnetic Field. ACS Applied Materials & Interfaces, 2021, 13, 38783-38791. | 8.0 | 6 |
| 10 | Critical-sized bone defects regeneration using a bone-inspired 3D bilayer collagen membrane in combination with leukocyte and platelet-rich fibrin membrane (L-PRF): An in vivo study. Tissue and Cell, 2020, 63, 101326. | 2.2 | 7 |
| 11 | Tissueâ€Adaptive Materials with Independently Regulated Modulus and Transition Temperature. Advanced Materials, 2020, 32, e2005314. | 21.0 | 27 |
| 12 | Tissue-Mimetic Dielectric Actuators: Free-Standing, Stable, and Solvent-Free. ACS Applied Polymer Materials, 2020, 2, 1741-1745. | 4.4 | 19 |
| 13 | In situ bone tissue engineering using gene delivery nanocomplexes. Acta Biomaterialia, 2020, 108, 326-336. | 8.3 | 41 |
| 14 | Fabrication and characterization of dextran/nanocrystalline Î²-tricalcium phosphate nanocomposite hydrogel scaffolds. International Journal of Biological Macromolecules, 2020, 148, 434-448. | 7.5 | 46 |
| 15 | Bottlebrush Bridge between Soft Gels and Firm Tissues. ACS Central Science, 2020, 6, 413-419. | 11.3 | 56 |
| 16 | Vibrational and sonochemical characterization of ultrasonic endodontic activating devices for translation to clinical efficacy. Materials Science and Engineering C, 2020, 109, 110646. | 7.3 | 5 |
| 17 | Tunable viscoelastic features of aqueous mixtures of thermosensitive ethyl(hydroxyethyl)cellulose and cellulose nanowhiskers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 590, 124489. | 4.7 | 6 |
| 18 | Nonlinear Elasticity and Swelling of Comb and Bottlebrush Networks. Macromolecules, 2019, 52, 5095-5101. | 4.8 | 29 |

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|---|---|---|---|
| 19 | Enhancing cell seeding and osteogenesis of MSCs on 3D printed scaffolds through injectable BMP2 immobilized ECM-Mimetic gel. Dental Materials, 2019, 35, 990-1006. | 3.5 | 48 |
| 20 | 3D printed tissue engineered model for bone invasion of oral cancer. Tissue and Cell, 2018, 52, 71-77. | 2.2 | 43 |
| 21 | Nanomagnetic-mediated drug delivery for the treatment of dental disease. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 919-927. | 3.3 | 21 |
| 22 | Dextran hydrogels incorporated with bioactive glass-ceramic: Nanocomposite scaffolds for bone tissue engineering. Carbohydrate Polymers, 2018, 190, 281-294. | 10.2 | 71 |
| 23 | Collagenous matrix supported by a 3D-printed scaffold for osteogenic differentiation of dental pulp cells. Dental Materials, 2018, 34, 209-220. | 3.5 | 26 |
| 24 | Effects of chain length of the cross-linking agent on rheological and swelling characteristics of dextran hydrogels. Carbohydrate Polymers, 2018, 181, 141-149. | 10.2 | 43 |
| 25 | Simulation of cortico-cancellous bone structure by 3D printing of bilayer calcium phosphate-based scaffolds. Bioprinting, 2017, 6, 1-7. | 5.8 | 46 |
| 26 | Experimental investigation and molecular dynamics simulation of acid-doped polybenzimidazole as a new membrane for air-breathing microbial fuel cells. Journal of Membrane Science, 2017, 535, 221-229. | 8.2 | 19 |
| 27 | Ultraviolet-induced surface grafting of octafluoropentyl methacrylate on polyether ether ketone for inducing antibiofilm properties. Journal of Biomaterials Applications, 2017, 32, 3-11. | 2.4 | 14 |
| 28 | Synthesis and temperature-induced self-assembly of a positively charged symmetrical pentablock terpolymer in aqueous solutions. European Polymer Journal, 2017, 97, 158-168. | 5.4 | 9 |
| 29 | Nanoscale Optoregulation of Neural Stem Cell Differentiation by Intracellular Alteration of Redox Balance. Advanced Functional Materials, 2017, 27, 1701420. | 14.9 | 14 |
| 30 | A current overview of materials and strategies for potential use in maxillofacial tissue regeneration. Materials Science and Engineering C, 2017, 70, 913-929. | 7.3 | 71 |
| 31 | On-chip detection of gel transition temperature using a novel micro-thermomechanical method. PLoS ONE, 2017, 12, e0183492. | 2.5 | 3 |
| 32 | Microfluidic Directed Synthesis of Alginate Nanogels with Tunable Pore Size for Efficient Protein Delivery. Langmuir, 2016, 32, 4996-5003. | 3.5 | 97 |
| 33 | Rheological Study and Molecular Dynamics Simulation of Biopolymer Blend Thermogels of Tunable Strength. Biomacromolecules, 2016, 17, 3474-3484. | 5.4 | 18 |
| 34 | Microfluidic Manipulation of Core/Shell Nanoparticles for Oral Delivery of Chemotherapeutics: A New Treatment Approach for Colorectal Cancer. Advanced Materials, 2016, 28, 4134-4141. | 21.0 | 74 |
| 35 | Understanding biophysical behaviours of microfluidic-synthesized nanoparticles at nano-biointerface. Colloids and Surfaces B: Biointerfaces, 2016, 145, 802-811. | 5.0 | 21 |
| 36 | Wrapping carbon nanotubes by biopolymer chains: Role of nanointerfaces in detection of vapors in conductive polymer composite transducers. Polymer Composites, 2016, 37, 2803-2810. | 4.6 | 9 |

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| 37 | Novel chitosan-based nanobiohybrid membranes for wound dressing applications. RSC Advances, 2016, 6, 7701-7711. | 3.6 | 56 |
| 38 | Ionic nanopeapods: Next-generation proton conducting membranes based on phosphotungstic acid filled carbon nanotube. Nano Energy, 2016, 23, 114-121. | 16.0 | 32 |
| 39 | Enhanced osteogenic differentiation of stem cells via microfluidics synthesized nanoparticles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 1809-1819. | 3.3 | 49 |
| 40 | Onâ€Chip Fabrication of Paclitaxelâ€Loaded Chitosan Nanoparticles for Cancer Therapeutics. Advanced Functional Materials, 2014, 24, 432-441. | 14.9 | 103 |
| 41 | Thermoresponsive biopolymer hydrogels with tunable gel characteristics. RSC Advances, 2014, 4, 39386-39393. | 3.6 | 19 |
| 42 | Air-breathing microbial fuel cell with enhanced performance using nanocomposite proton exchange membranes. Polymer, 2014, 55, 6102-6109. | 3.8 | 18 |
| 43 | Cellulose nanowhiskers to regulate the microstructure of perfluorosulfonate ionomers for high-performance fuel cells. Journal of Materials Chemistry A, 2014, 2, 11334. | 10.3 | 45 |
| 44 | Magnetically Aligned Nanodomains: Application in High-Performance Ion Conductive Membranes. ACS Applied Materials & Interfaces, 2014, 6, 7099-7107. | 8.0 | 30 |
| 45 | Drug Delivery: Onâ€Chip Fabrication of Paclitaxelâ€Loaded Chitosan Nanoparticles for Cancer Therapeutics (Adv. Funct. Mater. 4/2014). Advanced Functional Materials, 2014, 24, 418-418. | 14.9 | 2 |
| 46 | Microfluidicâ€Assisted Selfâ€Assembly of Complex Dendritic Polyethylene Drug Delivery Nanocapsules. Advanced Materials, 2014, 26, 3118-3123. | 21.0 | 49 |
| 47 | Superacid-doped polybenzimidazole-decorated carbon nanotubes: a novel high-performance proton exchange nanocomposite membrane. Nanoscale, 2013, 5, 11710. | 5.6 | 48 |
| 48 | Organically modified montmorillonite and chitosanâ€“phosphotungstic acid complex nanocomposites as high performance membranes for fuel cell applications. Journal of Solid State Electrochemistry, 2013, 17, 2123-2137. | 2.5 | 27 |
| 49 | A microfluidic approach to synthesizing high-performance microfibers with tunable anhydrous proton conductivity. Lab on A Chip, 2013, 13, 4549. | 6.0 | 17 |
| 50 | Microfluidic assisted self-assembly of chitosan based nanoparticles as drug delivery agents. Lab on A Chip, 2013, 13, 204-207. | 6.0 | 121 |
| 51 | Microfluidic self-assembly of polymeric nanoparticles with tunable compactness for controlled drug delivery. Polymer, 2013, 54, 4972-4979. | 3.8 | 70 |
| 52 | Oscillatory rheometric tracing of dextran crosslinking reaction in aqueous semidilute solutions â€“ Effects of formulation on the gelation properties. Polymer, 2013, 54, 2999-3007. | 3.8 | 12 |
| 53 | Nafion/chitosan-wrapped CNT nanocomposite membrane for high-performance direct methanol fuel cells. RSC Advances, 2013, 3, 7337. | 3.6 | 52 |
| 54 | Morphological Tuning of Polymeric Nanoparticles via Microfluidic Platform for Fuel Cell Applications. Journal of the American Chemical Society, 2012, 134, 18904-18907. | 13.7 | 55 |

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| 55 | Triple-layer proton exchange membranes based on chitosan biopolymer with reduced methanol crossover for high-performance direct methanol fuel cells application. Polymer, 2012, 53, 2643-2651. | 3.8 | 54 |
| 56 | Molecular dynamics simulation study of proton diffusion in polymer electrolyte membranes based on sulfonated poly (ether ether ketone). International Journal of Hydrogen Energy, 2012, 37, 10256-10264. | 7.1 | 65 |
| 57 | Investigation of gelation mechanism of an injectable hydrogel based on chitosan by rheological measurements for a drug delivery application. Soft Matter, 2012, 8, 7128. | 2.7 | 70 |
| 58 | Direct methanol fuel cell performance of sulfonated poly (2,6-dimethyl-1,4-phenylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (oxi Energy, 2011, 36, 3688-3696. | 7.1 | 39 |
| 59 | A high-performance chitosan-based double layer proton exchange membrane with reduced methanol crossover. International Journal of Hydrogen Energy, 2011, 36, 6105-6111. | 7.1 | 35 |
| 60 | Preparation and characterization of nanocomposite polyelectrolyte membranes based on NafionÂ® ionomer and nanocrystalline hydroxyapatite. Polymer, 2011, 52, 1286-1296. | 3.8 | 37 |
| 61 | Effects of organically modified nanoclay on the transport properties and electrochemical performance of acidâ€doped polybenzimidazole membranes. Journal of Applied Polymer Science, 2010, 117, 1227-1233. | 2.6 | 20 |
| 62 | Novel high-performance nanocomposite proton exchange membranes based on poly (ether sulfone). Renewable Energy, 2010, 35, 226-231. | 8.9 | 63 |
| 63 | Electrochemical investigation of sulfonated poly(ether ether ketone)/clay nanocomposite membranes for moderate temperature fuel cell applications. Journal of Power Sources, 2010, 195, 2450-2456. | 7.8 | 86 |
| 64 | Novel nanocomposite proton exchange membranes based on NafionÂ® and AMPS-modified montmorillonite for fuel cell applications. Journal of Membrane Science, 2010, 365, 286-293. | 8.2 | 70 |
| 65 | Structural modification of chitosan biopolymer as a novel polyelectrolyte membrane for green power generation. Polymers for Advanced Technologies, 2010, 21, 726-734. | 3.2 | 63 |
| 66 | Nanoscale Membrane Based on Filled Nanoporous Anodic Alumina with Proton-conducting Polymer for Fuel Cell Applications: Primary Morphological Evaluation. ECS Transactions, 2009, 25, 1085-1090. | 0.5 | 3 |
| 67 | Characterization of nanohybrid membranes for direct methanol fuel cell applications. Solid State Ionics, 2009, 180, 1497-1504. | 2.7 | 35 |
| 68 | NafionÂ®/bio-functionalized montmorillonite nanohybrids as novel polyelectrolyte membranes for direct methanol fuel cells. Journal of Power Sources, 2009, 190, 318-321. | 7.8 | 67 |