# Ali Tamayol

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8043427/publications.pdf

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|---|---|---|---|
| 126 papers | 13,139 citations | 31976 53 h-index | 23533 111 g-index |
| 134 all docs | 134 docs citations | 134 times ranked | 16292 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Tailoring the spatial filament organization within nanofibrous tissue engineering scaffolds. International Journal of Polymeric Materials and Polymeric Biomaterials, 2022, 71, 24-33. | 3.4 | 1 |
| 2 | In vivo printing of growth factor-eluting adhesive scaffolds improves wound healing. Bioactive Materials, 2022, 8, 296-308. | 15.6 | 66 |
| 3 | Bioinks and Bioprinting Strategies for Skeletal Muscle Tissue Engineering. Advanced Materials, 2022, 34, e2105883. | 21.0 | 53 |
| 4 | Multimodal sensing and therapeutic systems for wound healing and management: A review. Sensors and Actuators Reports, 2022, 4, 100075. | 4.4 | 32 |
| 5 | 3D printing for soft musculoskeletal tissue engineering. , 2022, , 167-200. | | 0 |
| 6 | (Bio)manufactured Solutions for Treatment of Bone Defects with an Emphasis on USâ€FDA Regulatory Science Perspective. Advanced NanoBiomed Research, 2022, 2, . | 3.6 | 12 |
| 7 | Nanoengineered myogenic scaffolds for skeletal muscle tissue engineering. Nanoscale, 2022, 14, 797-814. | 5.6 | 23 |
| 8 | Controlled release of azithromycin from polycaprolactone/chitosan nanofibrous membranes. Journal of Drug Delivery Science and Technology, 2022, 71, 103246. | 3.0 | 4 |
| 9 | A systematic overview of electrode configuration in electricâ€driven micropumps. Electrophoresis, 2022, 43, 1476-1520. | 2.4 | 9 |
| 10 | In situ bioprinting: intraoperative implementation of regenerative medicine. Trends in Biotechnology, 2022, 40, 1229-1247. | 9.3 | 30 |
| 11 | Extrusion bioprinting: Recent progress, challenges, and future opportunities. Bioprinting, 2021, 21, e00116. | 5.8 | 87 |
| 12 | Hydrogen Production by Immobilized Cells of Clostridium intestinale Strain URNW Using Alginate Beads. Applied Biochemistry and Biotechnology, 2021, 193, 1558-1573. | 2.9 | 8 |
| 13 | Fibrous Systems as Potential Solutions for Tendon and Ligament Repair, Healing, and Regeneration. Advanced Healthcare Materials, 2021, 10, e2001305. | 7.6 | 35 |
| 14 | In Vivo Printing of Nanoenabled Scaffolds for the Treatment of Skeletal Muscle Injuries. Advanced Healthcare Materials, 2021, 10, e2002152. | 7.6 | 59 |
| 15 | Miniaturized Needle Arrayâ€Mediated Drug Delivery Accelerates Wound Healing. Advanced Healthcare Materials, 2021, 10, e2001800. | 7.6 | 27 |
| 16 | 3Dâ€Printed Hydrogelâ€Filled Microneedle Arrays. Advanced Healthcare Materials, 2021, 10, e2001922. | 7.6 | 32 |
| 17 | Corrugated Compliant Capacitor towards Smart Bandage Application. , 2021, , . | | 2 |
| 18 | In situ printing of scaffolds for reconstruction of bone defects. Acta Biomaterialia, 2021, 127, 313-326. | 8.3 | 41 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Controlling cellular organization in bioprinting through designed 3D microcompartmentalization. Applied Physics Reviews, 2021, 8, 021404. | 11.3 | 45 |
| 20 | How can smart dressings change the future of wound care?. Journal of Wound Care, 2021, 30, 512-513. | 1.2 | 7 |
| 21 | Three-Dimensional Printing Using a Maize Protein: Zein-Based Inks in Biomedical Applications. ACS Biomaterials Science and Engineering, 2021, 7, 3964-3979. | 5.2 | 18 |
| 22 | Physicochemical Interactions in Nanofunctionalized Alginate/GelMA IPN Hydrogels. Nanomaterials, 2021, 11, 2256. | 4.1 | 15 |
| 23 | Extrusion-based 3D (Bio)Printed Tissue Engineering Scaffolds: Processâ€“Structureâ€“Quality Relationships. ACS Biomaterials Science and Engineering, 2021, 7, 4694-4717. | 5.2 | 12 |
| 24 | Biofabrication of natural hydrogels for cardiac, neural, and bone Tissue engineering Applications. Bioactive Materials, 2021, 6, 3904-3923. | 15.6 | 94 |
| 25 | Controlled self-assembly of microgels in microdroplets. Sensors and Actuators B: Chemical, 2021, 348, 130693. | 7.8 | 9 |
| 26 | Nanoengineered Antiviral Fibrous Arrays with Rose-Thorn-Inspired Architectures. , 2021, 3, 1566-1571. | | 5 |
| 27 | Colloidal multiscale porous adhesive (bio)inks facilitate scaffold integration. Applied Physics Reviews, 2021, 8, 041415. | 11.3 | 28 |
| 28 | Customizable Composite Fibers for Engineering Skeletal Muscle Models. ACS Biomaterials Science and Engineering, 2020, 6, 1112-1123. | 5.2 | 29 |
| 29 | A porous collagenâ€€GAG scaffold promotes muscle regeneration following volumetric muscle loss injury. Wound Repair and Regeneration, 2020, 28, 61-74. | 3.0 | 18 |
| 30 | In Situ Printing of Adhesive Hydrogel Scaffolds for the Treatment of Skeletal Muscle Injuries. ACS Applied Bio Materials, 2020, 3, 1568-1579. | 4.6 | 86 |
| 31 | Microfluidic Systems with Embedded Cell Culture Chambers for High-Throughput Biological Assays. ACS Applied Bio Materials, 2020, 3, 6661-6671. | 4.6 | 13 |
| 32 | Cholesteryl Ester Liquid Crystal Nanofibers for Tissue Engineering Applications. , 2020, 2, 1067-1073. | | 23 |
| 33 | Microneedle arrays for the treatment of chronic wounds. Expert Opinion on Drug Delivery, 2020, 17, 1767-1780. | 5.0 | 70 |
| 34 | Sustainable drug release from polycaprolactone coated chitin-lignin gel fibrous scaffolds. Scientific Reports, 2020, 10, 20428. | 3.3 | 37 |
| 35 | Oxygen-Releasing Antibacterial Nanofibrous Scaffolds for Tissue Engineering Applications. Polymers, 2020, 12, 1233. | 4.5 | 45 |
| 36 | Magnetic Nanoparticles in Cancer Therapy and Diagnosis. Advanced Healthcare Materials, 2020, 9, e1901058. | 7.6 | 261 |

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|---|---|---|---|
| 37 | Processâ€“Structureâ€“Quality Relationships of Three-Dimensional Printed Poly(Caprolactone)-Hydroxyapatite Scaffolds. Tissue Engineering - Part A, 2020, 26, 279-291. | 3.1 | 50 |
| 38 | Additive manufacturing of magnesium alloys. Bioactive Materials, 2020, 5, 44-54. | 15.6 | 158 |
| 39 | Effects of Bioactive Marine-Derived Liposomes on Two Human Breast Cancer Cell Lines. Marine Drugs, 2020, 18, 211. | 4.6 | 17 |
| 40 | Growth-Inhibitory Effect of Chitosan-Coated Liposomes Encapsulating Curcumin on MCF-7 Breast Cancer Cells. Marine Drugs, 2020, 18, 217. | 4.6 | 48 |
| 41 | A Wirelessly Controlled Smart Bandage with 3Dâ€Printed Miniaturized Needle Arrays. Advanced Functional Materials, 2020, 30, 1905544. | 14.9 | 109 |
| 42 | Nanocomposite hydrogels for tissue engineering applications. , 2020, , 499-528. | | 5 |
| 43 | Electrospun Nanofibrous Membranes for Preventing Tendon Adhesion. ACS Biomaterials Science and Engineering, 2020, 6, 4356-4376. | 5.2 | 21 |
| 44 | Softâ€Nanoparticle Functionalization of Natural Hydrogels for Tissue Engineering Applications. Advanced Healthcare Materials, 2019, 8, e1900506. | 7.6 | 95 |
| 45 | Stimuli-responsive hydrogels for manipulation of cell microenvironment: From chemistry to biofabrication technology. Progress in Polymer Science, 2019, 98, 101147. | 24.7 | 120 |
| 46 | 3D Bioprinting in Skeletal Muscle Tissue Engineering. Small, 2019, 15, e1805530. | 10.0 | 192 |
| 47 | Mechanical and Biochemical Stimulation of 3D Multilayered Scaffolds for Tendon Tissue Engineering. ACS Biomaterials Science and Engineering, 2019, 5, 2953-2964. | 5.2 | 66 |
| 48 | Breathable hydrogel dressings containing natural antioxidants for management of skin disorders. Journal of Biomaterials Applications, 2019, 33, 1265-1276. | 2.4 | 30 |
| 49 | Nanofibrous Scaffolds with Biomimetic Composition for Skin Regeneration. Applied Biochemistry and Biotechnology, 2019, 187, 1193-1203. | 2.9 | 40 |
| 50 | Fractureâ€Resistant and Bioresorbable Drugâ€Eluting Poly(glycerol Sebacate) Coils. Advanced Therapeutics, 2019, 2, 1800109. | 3.2 | 7 |
| 51 | Patientâ€Specific Bioinks for 3D Bioprinting of Tissue Engineering Scaffolds. Advanced Healthcare Materials, 2018, 7, e1701347. | 7.6 | 115 |
| 52 | Drug delivery systems and materials for wound healing applications. Advanced Drug Delivery Reviews, 2018, 127, 138-166. | 13.7 | 512 |
| 53 | Nanobead-on-string composites for tendon tissue engineering. Journal of Materials Chemistry B, 2018, 6, 3116-3127. | 5.8 | 49 |
| 54 | Micro and nanotechnologies for bone regeneration: Recent advances and emerging designs. Journal of Controlled Release, 2018, 274, 35-55. | 9.9 | 68 |

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| 55 | Tissue Regeneration: A Multifunctional Polymeric Periodontal Membrane with Osteogenic and Antibacterial Characteristics (Adv. Funct. Mater. 3/2018). Advanced Functional Materials, 2018, 28, 1870021. | 14.9 | 6 |
| 56 | Rapid prototyping of whole-thermoplastic microfluidics with built-in microvalves using laser ablation and thermal fusion bonding. Sensors and Actuators B: Chemical, 2018, 255, 100-109. | 7.8 | 104 |
| 57 | Nanofibrous scaffolds with biomimetic structure. Journal of Biomedical Materials Research - Part A, 2018, 106, 370-376. | 4.0 | 25 |
| 58 | Visible light crosslinkable human hair keratin hydrogels. Bioengineering and Translational Medicine, 2018, 3, 37-48. | 7.1 | 57 |
| 59 | Characterization, mechanistic analysis and improving the properties of denture adhesives. Dental Materials, 2018, 34, 120-131. | 3.5 | 16 |
| 60 | Cellâ€laden composite suture threads for repairing damaged tendons. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 1039-1048. | 2.7 | 25 |
| 61 | A Multifunctional Polymeric Periodontal Membrane with Osteogenic and Antibacterial Characteristics. Advanced Functional Materials, 2018, 28, 1703437. | 14.9 | 152 |
| 62 | Dissolvable Stents: 3D-Printed Sugar-Based Stents Facilitating Vascular Anastomosis (Adv. Healthcare) Tj ETQq0 0 0 rgBT /Overlock 10 T | 7.6 | 0 |
| 63 | 3Dâ€Printed Sugarâ€Based Stents Facilitating Vascular Anastomosis. Advanced Healthcare Materials, 2018, 7, e1800702. | 7.6 | 30 |
| 64 | Smart Bandages: The Future of Wound Care. Trends in Biotechnology, 2018, 36, 1259-1274. | 9.3 | 193 |
| 65 | Smart Bandage for Monitoring and Treatment of Chronic Wounds. Small, 2018, 14, e1703509. | 10.0 | 257 |
| 66 | Neuroprotective and Anti-Inflammatory Effects of Rhus coriaria Extract in a Mouse Model of Ischemic Optic Neuropathy. Biomedicines, 2018, 6, 48. | 3.2 | 21 |
| 67 | The Effect of Poly (Glycerol Sebacate) Incorporation within Hybrid Chitinâ€“Lignin Solâ€“Gel Nanofibrous Scaffolds. Materials, 2018, 11, 451. | 2.9 | 23 |
| 68 | The Positive Role of Curcumin-Loaded Salmon Nanoliposomes on the Culture of Primary Cortical Neurons. Marine Drugs, 2018, 16, 218. | 4.6 | 37 |
| 69 | Smart Bandages: Smart Bandage for Monitoring and Treatment of Chronic Wounds (Small 33/2018). Small, 2018, 14, 1870150. | 10.0 | 4 |
| 70 | Ischemic optic neuropathy as a model of neurodegenerative disorder: A review of pathogenic mechanism of axonal degeneration and the role of neuroprotection. Journal of the Neurological Sciences, 2017, 375, 430-441. | 0.6 | 27 |
| 71 | Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs. Advanced Functional Materials, 2017, 27, 1605352. | 14.9 | 278 |
| 72 | Highly Stretchable Potentiometric pH Sensor Fabricated via Laser Carbonization and Machining of Carbonâ^'Polyaniline Composite. ACS Applied Materials & Interfaces, 2017, 9, 9015-9023. | 8.0 | 146 |

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| 73 | Paper-based microfluidic system for tear electrolyte analysis. Lab on A Chip, 2017, 17, 1137-1148. | 6.0 | 111 |
| 74 | Engineering Photocrosslinkable Bicomponent Hydrogel Constructs for Creating 3D Vascularized Bone. Advanced Healthcare Materials, 2017, 6, 1601122. | 7.6 | 59 |
| 75 | Glucoseâ€Sensitive Hydrogel Optical Fibers Functionalized with Phenylboronic Acid. Advanced Materials, 2017, 29, 1606380. | 21.0 | 206 |
| 76 | Bioprinted Osteogenic and Vasculogenic Patterns for Engineering 3D Bone Tissue. Advanced Healthcare Materials, 2017, 6, 1700015. | 7.6 | 310 |
| 77 | Ultrasound induced strain cytoskeleton rearrangement: An experimental and simulation study. Journal of Biomechanics, 2017, 60, 39-47. | 2.1 | 34 |
| 78 | A highly adhesive and naturally derived sealant. Biomaterials, 2017, 140, 115-127. | 11.4 | 188 |
| 79 | Tailored electrospun small-diameter graft for vascular prosthesis. International Journal of Polymeric Materials and Polymeric Biomaterials, 2017, 66, 635-643. | 3.4 | 16 |
| 80 | Tissue Engineering: Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs (Adv. Funct.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4 | 14.9 | 3 |
| 81 | Single Cell Microgel Based Modular Bioinks for Uncoupled Cellular Microâ€and Macroenvironments. Advanced Healthcare Materials, 2017, 6, 1600913. | 7.6 | 84 |
| 82 | Human Periodontal Ligamentâ€and Gingivaâ€derived Mesenchymal Stem Cells Promote Nerve Regeneration When Encapsulated in Alginate/Hyaluronic Acid 3D Scaffold. Advanced Healthcare Materials, 2017, 6, 1700670. | 7.6 | 59 |
| 83 | A Textile Dressing for Temporal and Dosage Controlled Drug Delivery. Advanced Functional Materials, 2017, 27, 1702399. | 14.9 | 187 |
| 84 | Biodegradable elastic nanofibrous platforms with integrated flexible heaters for on-demand drug delivery. Scientific Reports, 2017, 7, 9220. | 3.3 | 90 |
| 85 | Spatially and temporally controlled hydrogels for tissue engineering. Materials Science and Engineering Reports, 2017, 119, 1-35. | 31.8 | 151 |
| 86 | Nanostructured Fibrous Membranes with Rose Spike-Like Architecture. Nano Letters, 2017, 17, 6235-6240. | 9.1 | 72 |
| 87 | 3D Printed Anchoring Sutures for Permanent Shaping of Tissues. Macromolecular Bioscience, 2017, 17, 1700304. | 4.1 | 7 |
| 88 | Assessment of neuroprotective properties of Rhus coriaria L. ethanol extract in an in vitro model of retinal degeneration. Journal of Herbal Medicine, 2017, 10, 45-52. | 2.0 | 10 |
| 89 | In vitro and in vivo analysis of visible light crosslinkable gelatin methacryloyl (GelMA) hydrogels. Biomaterials Science, 2017, 5, 2093-2105. | 5.4 | 218 |
| 90 | Microfibrous silver-coated polymeric scaffolds with tunable mechanical properties. RSC Advances, 2017, 7, 34331-34338. | 3.6 | 29 |

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| 91 | Microengineered 3D cellâ€laden thermoresponsive hydrogels for mimicking cell morphology and orientation in cartilage tissue engineering. Biotechnology and Bioengineering, 2017, 114, 217-231. | 3.3 | 61 |
| 92 | Nanofibrous Silver-Coated Polymeric Scaffolds with Tunable Electrical Properties. Nanomaterials, 2017, 7, 63. | 4.1 | 23 |
| 93 | Time dependency of morphological remodeling of endothelial cells in response to substrate stiffness. BioImpacts, 2017, 7, 41-47. | 1.5 | 11 |
| 94 | Textile Technologies and Tissue Engineering: A Path Toward Organ Weaving. Advanced Healthcare Materials, 2016, 5, 751-766. | 7.6 | 161 |
| 95 | A Bioactive Carbon Nanotubeâ€Based Ink for Printing 2D and 3D Flexible Electronics. Advanced Materials, 2016, 28, 3280-3289. | 21.0 | 199 |
| 96 | Natural lecithin promotes neural network complexity and activity. Scientific Reports, 2016, 6, 25777. | 3.3 | 33 |
| 97 | Graphene-based materials for tissue engineering. Advanced Drug Delivery Reviews, 2016, 105, 255-274. | 13.7 | 537 |
| 98 | Highly Elastic and Conductive Humanâ€Based Protein Hybrid Hydrogels. Advanced Materials, 2016, 28, 40-49. | 21.0 | 226 |
| 99 | Biomarkers and diagnostic tools for detection of Helicobacter pylori. Applied Microbiology and Biotechnology, 2016, 100, 4723-4734. | 3.6 | 20 |
| 100 | A paper-based in vitro model for on-chip investigation of the human respiratory system. Lab on A Chip, 2016, 16, 4319-4325. | 6.0 | 24 |
| 101 | Textile Processes for Engineering Tissues with Biomimetic Architectures and Properties. Trends in Biotechnology, 2016, 34, 683-685. | 9.3 | 31 |
| 102 | Laterally Confined Microfluidic Patterning of Cells for Engineering Spatially Defined Vascularization. Small, 2016, 12, 5132-5139. | 10.0 | 21 |
| 103 | Dermal Patch with Integrated Flexible Heater for on Demand Drug Delivery. Advanced Healthcare Materials, 2016, 5, 175-184. | 7.6 | 109 |
| 104 | pHâ€Sensing Hydrogel Fibers: Flexible pHâ€Sensing Hydrogel Fibers for Epidermal Applications (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf | 7.6 | 4 |
| 105 | Flexible pHâ€Sensing Hydrogel Fibers for Epidermal Applications. Advanced Healthcare Materials, 2016, 5, 711-719. | 7.6 | 172 |
| 106 | A liver-on-a-chip platform with bioprinted hepatic spheroids. Biofabrication, 2016, 8, 014101. | 7.1 | 466 |
| 107 | A low-cost flexible pH sensor array for wound assessment. Sensors and Actuators B: Chemical, 2016, 229, 609-617. | 7.8 | 138 |
| 108 | Bioactive Fibers: Hydrogel Templates for Rapid Manufacturing of Bioactive Fibers and 3D Constructs (Adv. Healthcare Mater. 14/2015). Advanced Healthcare Materials, 2015, 4, 2050-2050. | 7.6 | 2 |

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| 109 | Hydrogel Templates for Rapid Manufacturing of Bioactive Fibers and 3D Constructs. Advanced Healthcare Materials, 2015, 4, 2146-2153. | 7.6 | 127 |
| 110 | Smart flexible wound dressing with wireless drug delivery. , 2015, , . | | 11 |
| 111 | Microfluidics for advanced drug delivery systems. Current Opinion in Chemical Engineering, 2015, 7, 101-112. | 7.8 | 182 |
| 112 | Elastic sealants for surgical applications. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 95, 27-39. | 4.3 | 182 |
| 113 | Adenosine-associated delivery systems. Journal of Drug Targeting, 2015, 23, 580-596. | 4.4 | 34 |
| 114 | Synthesis, properties, and biomedical applications of gelatin methacryloyl (GelMA) hydrogels. Biomaterials, 2015, 73, 254-271. | 11.4 | 1,871 |
| 115 | Serpentine and leading-edge capillary pumps for microfluidic capillary systems. Microfluidics and Nanofluidics, 2015, 18, 357-366. | 2.2 | 34 |
| 116 | Morphological and Physical Analysis of Natural Phospholipids-Based Biomembranes. PLoS ONE, 2014, 9, e107435. | 2.5 | 24 |
| 117 | 25th Anniversary Article: Rational Design and Applications of Hydrogels in Regenerative Medicine. Advanced Materials, 2014, 26, 85-124. | 21.0 | 1,103 |
| 118 | Composite Living Fibers for Creating Tissue Constructs Using Textile Techniques. Advanced Functional Materials, 2014, 24, 4060-4067. | 14.9 | 131 |
| 119 | Numerical analysis of the curvature effects on Ranqueâ€“Hilsch vortex tube refrigerators. Applied Thermal Engineering, 2014, 65, 176-183. | 6.0 | 37 |
| 120 | Surgical materials: Current challenges and nano-enabled solutions. Nano Today, 2014, 9, 574-589. | 11.9 | 158 |
| 121 | Biodegradable Nanofibrous Polymeric Substrates for Generating Elastic and Flexible Electronics. Advanced Materials, 2014, 26, 5823-5830. | 21.0 | 117 |
| 122 | Microfluidic direct writer with integrated declogging mechanism for fabricating cell-laden hydrogel constructs. Biomedical Microdevices, 2014, 16, 387-395. | 2.8 | 61 |
| 123 | Numerical analysis for curved vortex tube optimization. International Communications in Heat and Mass Transfer, 2014, 50, 98-107. | 5.6 | 46 |
| 124 | Fiber-based tissue engineering: Progress, challenges, and opportunities. Biotechnology Advances, 2013, 31, 669-687. | 11.7 | 386 |
| 125 | Fluid flow and forced convection heat transfer around a solid cylinder wrapped with a porous ring. International Journal of Heat and Mass Transfer, 2013, 63, 91-100. | 4.8 | 75 |
| 126 | Measurement of pressure drop and flow resistance in microchannels with integrated micropillars. Microfluidics and Nanofluidics, 2013, 14, 711-721. | 2.2 | 32 |