# Tai-Rong Kuang

List of Publications by Year
in descending order

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|---|---|---|---|
| 88 papers | 4,165 citations | 109264 35 h-index | 118793 62 g-index |
| 88 all docs | 88 docs citations | 88 times ranked | 5149 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Heteroatom-doped carbon dots: synthesis, characterization, properties, photoluminescence mechanism and biological applications. Journal of Materials Chemistry B, 2016, 4, 7204-7219. | 2.9 | 396 |
| 2 | Facile preparation of lightweight high-strength biodegradable polymer/multi-walled carbon nanotubes nanocomposite foams for electromagnetic interference shielding. Carbon, 2016, 105, 305-313. | 5.4 | 374 |
| 3 | Facile preparation of open-cellular porous poly (l-lactic acid) scaffold by supercritical carbon dioxide foaming for potential tissue engineering applications. Chemical Engineering Journal, 2017, 307, 1017-1025. | 6.6 | 193 |
| 4 | Functional exosome-mimic for delivery of siRNA to cancer: in vitro and in vivo evaluation. Journal of Controlled Release, 2016, 243, 160-171. | 4.8 | 152 |
| 5 | ZIF-8-Based Membranes for Carbon Dioxide Capture and Separation. ACS Sustainable Chemistry and Engineering, 2017, 5, 11204-11214. | 3.2 | 129 |
| 6 | Fabrication of Poly(lactic acid)/Graphene Oxide Foams with Highly Oriented and Elongated Cell Structure via Unidirectional Foaming Using Supercritical Carbon Dioxide. Industrial & Engineering Chemistry Research, 2015, 54, 758-768. | 1.8 | 124 |
| 7 | Lightweight multifunctional polypropylene/carbon nanotubes/carbon black nanocomposite foams with segregated structure, ultralow percolation threshold and enhanced electromagnetic interference shielding performance. Composites Science and Technology, 2020, 193, 108116. | 3.8 | 110 |
| 8 | Double network hydrogel for tissue engineering. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2018, 10, e1520. | 3.3 | 104 |
| 9 | Synthesis of DOPO-HQ-functionalized graphene oxide as a novel and efficient flame retardant and its application on polylactic acid: Thermal property, flame retardancy, and mechanical performance. Journal of Colloid and Interface Science, 2018, 524, 267-278. | 5.0 | 99 |
| 10 | 3D nanochannel electroporation for high-throughput cell transfection with high uniformity and dosage control. Nanoscale, 2016, 8, 243-252. | 2.8 | 88 |
| 11 | A CRISPR/Cas13a-powered catalytic electrochemical biosensor for successive and highly sensitive RNA diagnostics. Biosensors and Bioelectronics, 2021, 178, 113027. | 5.3 | 87 |
| 12 | Effect of Poly(butylenes succinate) on Poly(lactic acid) Foaming Behavior: Formation of Open Cell Structure. Industrial & Engineering Chemistry Research, 2015, 54, 6199-6207. | 1.8 | 84 |
| 13 | Intravesical Hydrogels as Drug Reservoirs. Trends in Biotechnology, 2020, 38, 579-583. | 4.9 | 83 |
| 14 | High-performance porous PLLA-based scaffolds for bone tissue engineering: Preparation, characterization, and in vitro and in vivo evaluation. Polymer, 2019, 180, 121707. | 1.8 | 81 |
| 15 | Electrospun poly (butylene succinate)/cellulose nanocrystals bio-nanocomposite scaffolds for tissue engineering: Preparation, characterization and in vitro evaluation. Polymer Testing, 2018, 71, 101-109. | 2.3 | 79 |
| 16 | A facile approach towards fabrication of lightweight biodegradable poly (butylene succinate)/carbon fiber composite foams with high electrical conductivity and strength. Composites Science and Technology, 2018, 159, 171-179. | 3.8 | 74 |
| 17 | Superior Impact Toughness and Excellent Storage Modulus of Poly(lactic acid) Foams Reinforced by Shish-Kebab Nanoporous Structure. ACS Applied Materials & Interfaces, 2017, 9, 21071-21076. | 4.0 | 69 |
| 18 | High-strength, flexible and cycling-stable piezo-resistive polymeric foams derived from thermoplastic polyurethane and multi-wall carbon nanotubes. Composites Part B: Engineering, 2020, 199, 108279. | 5.9 | 68 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Delivery of Nanoparticles for Treatment of Brain Tumor. Current Drug Metabolism, 2016, 17, 745-754. | 0.7 | 65 |
| 20 | Controllable Large-Scale Transfection of Primary Mammalian Cardiomyocytes on a Nanochannel Array Platform. Small, 2016, 12, 5971-5980. | 5.2 | 64 |
| 21 | Poly (propylene carbonate)-based in situ nanofibrillar biocomposites with enhanced miscibility, dynamic mechanical properties, rheological behavior and extrusion foaming ability. Composites Part B: Engineering, 2017, 123, 112-123. | 5.9 | 62 |
| 22 | Molecular Beacon Nano-Sensors for Probing Living Cancer Cells. Trends in Biotechnology, 2017, 35, 347-359. | 4.9 | 58 |
| 23 | Preparation, Properties, and Applications of Graphene-Based Hydrogels. Frontiers in Chemistry, 2018, 6, 450. | 1.8 | 56 |
| 24 | Fabrication of bimodal open-porous poly (butylene succinate)/cellulose nanocrystals composite scaffolds for tissue engineering application. International Journal of Biological Macromolecules, 2020, 147, 1164-1173. | 3.6 | 52 |
| 25 | Lignin-derived hierarchical mesoporous carbon and NiO hybrid nanospheres with exceptional Li-ion battery and pseudocapacitive properties. Electrochimica Acta, 2018, 274, 288-297. | 2.6 | 51 |
| 26 | Scale-up production of lightweight high-strength polystyrene/carbonaceous filler composite foams with high-performance electromagnetic interference shielding. Materials Letters, 2018, 230, 157-160. | 1.3 | 51 |
| 27 | Bi-phase fire-resistant polyethylenimine/graphene oxide/melanin coatings using layer by layer assembly technique: Smoke suppression and thermal stability of flexible polyurethane foams. Polymer, 2019, 170, 65-75. | 1.8 | 51 |
| 28 | Enzyme-responsive Nanoparticles for Anticancer Drug Delivery. Current Nanoscience, 2015, 12, 38-46. | 0.7 | 50 |
| 29 | High performance high-density polyethylene/hydroxyapatite nanocomposites for load-bearing bone substitute: fabrication, in vitro and in vivo biocompatibility evaluation. Composites Science and Technology, 2019, 175, 100-110. | 3.8 | 50 |
| 30 | Patchable micro/nanodevices interacting with skin. Biosensors and Bioelectronics, 2018, 122, 189-204. | 5.3 | 47 |
| 31 | A facile structural manipulation strategy to prepare ultra-strong, super-tough, and thermally stable polylactide/nucleating agent composites. Advanced Composites and Hybrid Materials, 2022, 5, 948-959. | 9.9 | 46 |
| 32 | Rotational Molding of Linear Low-Density Polyethylene Composites Filled with Wheat Bran. Polymers, 2020, 12, 1004. | 2.0 | 44 |
| 33 | Supercritical CO2 foaming of pressure-induced-flow processed linear polypropylene. Materials and Design, 2016, 93, 509-513. | 3.3 | 43 |
| 34 | Combined treatments of fiber surface etching/silane-coupling for enhanced mechanical strength of aramid fiber-reinforced rubber blends. Materials Chemistry and Physics, 2020, 255, 123486. | 2.0 | 41 |
| 35 | Polyelectrolyte/mesoporous silica hybrid materials for the high performance multiple-detection of pH value and temperature. Polymer Chemistry, 2015, 6, 3529-3536. | 1.9 | 39 |
| 36 | Synthetic Melanin E-Ink. ACS Applied Materials & Interfaces, 2017, 9, 16553-16560. | 4.0 | 39 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Morphological Structure, Rheological Behavior, Mechanical Properties and Sound Insulation Performance of Thermoplastic Rubber Composites Reinforced by Different Inorganic Fillers. Polymers, 2018, 10, 276. | 2.0 | 37 |
| 38 | MoS2 decorated lignin-derived hierarchical mesoporous carbon hybrid nanospheres with exceptional Li-ion battery cycle stability. Chinese Chemical Letters, 2019, 30, 197-202. | 4.8 | 36 |
| 39 | Fluorescence detection of Escherichia coli on mannose modified ZnTe quantum dots. Chinese Chemical Letters, 2020, 31, 1504-1507. | 4.8 | 35 |
| 40 | Fabrication of Poly(butylene succinate)/Carbon Black Nanocomposite Foams with Good Electrical Conductivity and High Strength by a Supercritical CO2 Foaming Process. Polymers, 2019, 11, 1852. | 2.0 | 34 |
| 41 | A facile approach to fabricate load-bearing porous polymer scaffolds for bone tissue engineering. Advanced Composites and Hybrid Materials, 2022, 5, 1376-1384. | 9.9 | 34 |
| 42 | Strength and modulus improvement of wet-spun cellulose I filaments by sequential physical and chemical cross-linking. Materials and Design, 2017, 136, 45-53. | 3.3 | 33 |
| 43 | Formation of stretched fibrils and nanohybrid shish-kebabs in isotactic polypropylene-based nanocomposites by application of a dynamic oscillatory shear. Chemical Engineering Journal, 2018, 348, 546-556. | 6.6 | 33 |
| 44 | Lab-on-a-Chip Platforms for Biophysical Studies of Cancer with Single-Cell Resolution. Trends in Biotechnology, 2018, 36, 549-561. | 4.9 | 33 |
| 45 | Facile fabrication of fully biodegradable and biorenewable poly (lactic acid)/poly (butylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 excellent heat resistance. Polymer Degradation and Stability, 2020, 171, 109044. | 2.7 | 33 |
| 46 | Effect of heat-treatment on stress relief and dimensional stability behavior of SiCp/Al composite with high SiC content. Materials and Design, 2015, 86, 508-515. | 3.3 | 31 |
| 47 | Conductive thermoplastic polyurethane nanocomposite foams derived from a cellulose/MWCNTs aerogel framework: simultaneous enhancement of piezoresistance, strength, and endurance. Journal of Materials Chemistry C, 2021, 9, 13103-13114. | 2.7 | 30 |
| 48 | Ultra-strong, tough and high wear resistance high-density polyethylene for structural engineering application: A facile strategy towards using the combination of extensional dynamic oscillatory shear flow and ultra-high-molecular-weight polyethylene. Composites Science and Technology, 2018, 167, 301-312. | 3.8 | 29 |
| 49 | PEG/heparin-decorated lipidâ€“polymer hybrid nanoparticles for long-circulating drug delivery. RSC Advances, 2016, 6, 23279-23287. | 1.7 | 28 |
| 50 | Ultrasonic processing of MWCNT nanopaper reinforced polymeric nanocomposites. Polymer, 2018, 156, 85-94. | 1.8 | 26 |
| 51 | Enhanced osseointegration of double network hydrogels via calcium polyphosphate incorporation for bone regeneration. International Journal of Biological Macromolecules, 2020, 151, 1126-1132. | 3.6 | 26 |
| 52 | External flow-induced highly oriented and dense nanohybrid shish-kebabs: A strategy for achieving high performance in poly (lactic acid) composites. Composites Communications, 2022, 29, 101042. | 3.3 | 26 |
| 53 | Heteroatoms-doped 3D carbon nanosphere cages embedded with MoS2 for lithium-ion battery. Electrochimica Acta, 2020, 332, 135490. | 2.6 | 25 |
| 54 | Effect of nanoporous structure and polymer brushes on the ionic conductivity of poly(methacrylic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 | 1.7 | 24 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Effect of poly(ethylene glycol) on the properties and foaming behavior of macroporous poly(lactic) Tj ETQq1 1 0.784314 rgBT /Overlo | 1.3 | 21 |
| 56 | Fabrication of high strength PA6/PP blends with pressure-induced-flow processing. Materials Chemistry and Physics, 2015, 164, 1-5. | 2.0 | 21 |
| 57 | Synthesis and characterization of lignosulfonate-derived hierarchical porous graphitic carbons for electrochemical performances. Microporous and Mesoporous Materials, 2017, 247, 184-189. | 2.2 | 21 |
| 58 | Enhanced strength and foamability of high-density polyethylene prepared by pressure-induced flow and low-temperature crosslinking. RSC Advances, 2016, 6, 34422-34427. | 1.7 | 18 |
| 59 | Polyamide 6 modified polypropylene with remarkably enhanced mechanical performance, thermal properties, and foaming ability via pressureâ€inducedâ€flow processing approach. Advances in Polymer Technology, 2018, 37, 2721-2729. | 0.8 | 18 |
| 60 | Superior mechanical performance of in-situ nanofibrillar HDPE/PTFE composites with highly oriented and compacted nanohybrid shish-kebab structure. Composites Science and Technology, 2021, 207, 108715. | 3.8 | 17 |
| 61 | Recent Progress in Dendrimer-based Gene Delivery Systems. Current Organic Chemistry, 2016, 20, 1820-1826. | 0.9 | 16 |
| 62 | Improved crystallizability and processability of ultra high molecular weight polyethylene modified by poly(amido amine) dendrimers. Polymer Engineering and Science, 2017, 57, 153-160. | 1.5 | 15 |
| 63 | Highly sensitive large strain cellulose/multiwalled carbon nanotubes (MWCNTs)/thermoplastic polyurethane (TPU) nanocomposite foams: From design to performance evaluation. Journal of Supercritical Fluids, 2022, 188, 105653. | 1.6 | 14 |
| 64 | Enhanced sound insulation and mechanical properties based on inorganic fillers/thermoplastic elastomer composites. Journal of Thermoplastic Composite Materials, 2019, 32, 936-950. | 2.6 | 13 |
| 65 | Preparation and properties of thermoplastic polyurethane foams with bimodal structure based on TPU/PDMS blends. Journal of Supercritical Fluids, 2021, 177, 105324. | 1.6 | 13 |
| 66 | Simultaneous reinforcing and toughening of high impact polystyrene with a novel processing method of loop oscillating pushâ€“pull molding. Materials Letters, 2014, 123, 55-58. | 1.3 | 12 |
| 67 | Photoresponsive polyelectrolyte/mesoporous silica hybrid materials with remote-controllable ionic transportation. Chemical Engineering Journal, 2017, 322, 445-453. | 6.6 | 12 |
| 68 | Recent advances in biofluid detection with micro/nanostructured bioelectronic devices. Nanoscale, 2021, 13, 3436-3453. | 2.8 | 12 |
| 69 | Effect of dynamic oscillation shear flow intensity on the mechanical and morphological properties of high-density polyethylene: An integrated experimental and molecular dynamics simulation study. Polymer Testing, 2019, 80, 106122. | 2.3 | 11 |
| 70 | Preparation of SiCp/Al compositeâ€“bismuthate glass material and its application in mirror blanks. RSC Advances, 2015, 5, 52167-52173. | 1.7 | 7 |
| 71 | Light-triggered pH/thermal multisensitive polyelectrolyte/ITO glass hybrid electrode. Applied Surface Science, 2019, 464, 273-279. | 3.1 | 7 |
| 72 | Pressure-induced flow processing behind the superior mechanical properties and heat-resistance performance of poly(butylene succinate). E-Polymers, 2022, 22, 156-164. | 1.3 | 7 |

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|---|---|---|---|
| 73 | Enhanced Photocatalysis of Yittium-Doped TiO<sub>2</sub>/D-PVA Composites: Degradation of Methyl Orange (MO) and PVC Film. Science of Advanced Materials, 2016, 8, 1286-1292. | 0.1 | 6 |
| 74 | Eco-friendly biodegradable polymers: Sustainable future. Polymers From Renewable Resources, 2022, 13, 71-79. | 0.8 | 6 |
| 75 | Polystyrene/multi-wall carbon nanotube composite and its foam assisted by ultrasound vibration. Journal of Cellular Plastics, 2017, 53, 273-285. | 1.2 | 5 |
| 76 | Glass coating on SiCp/Al composite mirror for ultra-smooth surface. International Journal of Advanced Manufacturing Technology, 2017, 88, 1745-1753. | 1.5 | 5 |
| 77 | DNA-Coded Fluorescence for Color Painting RNAs. CheM, 2018, 4, 1194-1196. | 5.8 | 5 |
| 78 | Synergetic effect of nanoclay and nano-CaCO<sub>3</sub> hybrid filler systems on the foaming properties and cellular structure of polystyrene nanocomposite foams using supercritical CO<sub>2</sub>. Frontiers in Forests and Global Change, 2020, 39, 185-202. | 0.6 | 5 |
| 79 | MoS2Ânanosheets uniformly grown on polyphosphazene-derived carbon nanospheres for lithium-ion batteries. Surfaces and Interfaces, 2021, 24, 101034. | 1.5 | 5 |
| 80 | Synthesis of low toxicity metal-organic framework carrier for drug release. Materials Express, 2020, 10, 934-941. | 0.2 | 4 |
| 81 | Enhanced aging resistance of poly(Îµ-caprolactone)/brewersâ€™ spent grain composites. Polimery, 2022, 67, 3-12. | 0.4 | 4 |
| 82 | Preparation of polymeric superhydrophobic surfaces and analysis of their wettability. Heat and Mass Transfer, 2015, 51, 1437-1444. | 1.2 | 2 |
| 83 | Incorporation and optimization of RGO and GO in SSBR/NR composites expands their applicability. Polymers and Polymer Composites, 2021, 29, S411-S421. | 1.0 | 2 |
| 84 | High sound insulation property of prepared polypropylene/polyolefin elastomer blends by combining pressure-induced-flow processing and supercritical CO2 foaming. Composites Communications, 2021, 28, 100958. | 3.3 | 2 |
| 85 | A comparison study of hyaluronic acid hydrogel exquisite micropatterns with photolithography and light-cured inkjet printing methods. E-Polymers, 2022, 22, 332-341. | 1.3 | 2 |
| 86 | Nanofabrication: Controllable Large-Scale Transfection of Primary Mammalian Cardiomyocytes on a Nanochannel Array Platform (Small 43/2016). Small, 2016, 12, 5914-5914. | 5.2 | 1 |
| 87 | Hierarchical Structured Polymeric Materials in Nanotechnology. International Journal of Polymer Science, 2016, 2016, 1-2. | 1.2 | 0 |
| 88 | Effect of Nanoclay on Natural Fiber/Polymer Composites. Engineering Materials, 2016, , 175-207. | 0.3 | 0 |