Karan Gulati

List of Publications by Year
in descending order

58 papers	2,696 citations	136740 32 h-index	182168 51 g-index
59 all docs	59 docs citations	59 times ranked	2214 citing authors

#	Article	IF	Citations
1	Biocompatible polymer coating of titania nanotube arrays for improved drug elution and osteoblast adhesion. Acta Biomaterialia, 2012, 8, 449-456.	4.1	251
2	Titania nanotube arrays for local drug delivery: recent advances and perspectives. Expert Opinion on Drug Delivery, 2015, 12, 103-127.	2.4	146
3	Advanced biopolymer-coated drug-releasing titania nanotubes (TNTs) implants with simultaneously enhanced osteoblast adhesion and antibacterial properties. Colloids and Surfaces B: Biointerfaces, 2015, 130, 255-263.	2.5	113
4	Local drug delivery to the bone by drug-releasing implants: perspectives of nano-engineered titania nanotube arrays. Therapeutic Delivery, 2012, 3, 857-873.	1.2	99
5	Optimizing Anodization Conditions for the Growth of Titania Nanotubes on Curved Surfaces. Journal of Physical Chemistry C, 2015, 119, 16033-16045.	1.5	95
6	Drug-eluting Ti wires with titania nanotube arrays for bone fixation and reduced bone infection. Nanoscale Research Letters, 2011, 6, 571.	3.1	89
7	Controlling Drug Release from Titania Nanotube Arrays Using Polymer Nanocarriers and Biopolymer Coating. Journal of Biomaterials and Nanobiotechnology, 2011, 02, 477-484.	1.0	88
8	Anodized 3D-printed titanium implants with dual micro- and nano-scale topography promote interaction with human osteoblasts and osteocyte-like cells. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 3313-3325.	1.3	88
9	Orchestrating soft tissue integration at the transmucosal region of titanium implants. Acta Biomaterialia, 2021, 124, 33-49.	4.1	88
10	Race to invade: Understanding soft tissue integration at the transmucosal region of titanium dental implants. Dental Materials, 2021, 37, 816-831.	1.6	87
11	Understanding and optimizing the antibacterial functions of anodized nano-engineered titanium implants. Acta Biomaterialia, 2021, 127, 80-101.	4.1	79
12	Dental implants modified with drug releasing titania nanotubes: therapeutic potential and developmental challenges. Expert Opinion on Drug Delivery, 2017, 14, 1009-1024.	2.4	77
13	Titania nanotubes for orchestrating osteogenesis at the boneâ€“implant interface. Nanomedicine, 2016, 11, 1847-1864.	1.7	74
14	Understanding and augmenting the stability of therapeutic nanotubes on anodized titanium implants. Materials Science and Engineering C, 2018, 88, 182-195.	3.8	73
15	Titania nanopores with dual micro-/nano-topography for selective cellular bioactivity. Materials Science and Engineering C, 2018, 91, 624-630.	3.8	69
16	Anodized anisotropic titanium surfaces for enhanced guidance of gingival fibroblasts. Materials Science and Engineering C, 2020, 112, 110860.	3.8	62
17	Dental Implant Nano-Engineering: Advances, Limitations and Future Directions. Nanomaterials, 2021, 11, 2489.	1.9	55
18	Drug-releasing nano-engineered titanium implants: therapeutic efficacy in 3D cell culture model, controlled release and stability. Materials Science and Engineering C, 2016, 69, 831-840.	3.8	53

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19	Bridging the gap: Optimized fabrication of robust titania nanostructures on complex implant geometries towards clinical translation. Journal of Colloid and Interface Science, 2018, 529, 452-463.	5.0	50
20	Self-ordering Electrochemistry: A Simple Approach for Engineering Nanopore and Nanotube Arrays for Emerging Applications. Australian Journal of Chemistry, 2011, 64, 294.	0.5	48
21	Tailoring the immuno-responsiveness of anodized nano-engineered titanium implants. Journal of Materials Chemistry B, 2018, 6, 2677-2689.	2.9	46
22	Nanoengineered drug-releasing Ti wires as an alternative for local delivery of chemotherapeutics in the brain. International Journal of Nanomedicine, 2012, 7, 2069.	3.3	43
23	Role of offset and gradient architectures of 3-D melt electrowritten scaffold on differentiation and mineralization of osteoblasts. Biomaterials Research, 2020, 24, 2.	3.2	43
24	Titanium wire implants with nanotube arrays: A study model for localized cancer treatment. Biomaterials, 2016, 101, 176-188.	5.7	41
25	Advancing dental implants: Bioactive and therapeutic modifications of zirconia. Bioactive Materials, 2022, 13, 161-178.	8.6	40
26	Old is Gold: Electrolyte Aging Influences the Topography, Chemistry, and Bioactivity of Anodized TiO₂ Nanopores. ACS Applied Materials & Interfaces, 2021, 13, 7897-7912.	4.0	39
27	Real-time and in Situ Drug Release Monitoring from Nanoporous Implants under Dynamic Flow Conditions by Reflectometric Interference Spectroscopy. ACS Applied Materials & Interfaces, 2013, 5, 5436-5442.	4.0	37
28	Periodically tailored titania nanotubes for enhanced drug loading and releasing performances. Journal of Materials Chemistry B, 2015, 3, 2553-2559.	2.9	37
29	ON or OFF: Triggered therapies from anodized nano-engineered titanium implants. Journal of Controlled Release, 2021, 333, 521-535.	4.8	35
30	Conversion of titania (TiO₂) into conductive titanium (Ti) nanotube arrays for combined drug-delivery and electrical stimulation therapy. Journal of Materials Chemistry B, 2016, 4, 371-375.	2.9	34
31	Consume or Conserve: Microroughness of Titanium Implants toward Fabrication of Dual Microâ€“Nanotopography. ACS Biomaterials Science and Engineering, 2018, 4, 3125-3131.	2.6	34
32	Determining the relative importance of titania nanotubes characteristics on bone implant surface performance: A quality by design study with a fuzzy approach. Materials Science and Engineering C, 2020, 114, 110995.	3.8	33
33	Characterization of drug-release kinetics in trabecular bone from titania nanotube implants. International Journal of Nanomedicine, 2012, 7, 4883.	3.3	32
34	Drug diffusion, integration, and stability of nanoengineered drugâ€releasing implants in bone exâ€vivo. Journal of Biomedical Materials Research - Part A, 2016, 104, 714-725.	2.1	32
35	Double-edged sword: Therapeutic efficacy versus toxicity evaluations of doped titanium implants. Drug Discovery Today, 2021, 26, 2734-2742.	3.2	28
36	Periodontal and Dental Pulp Cell-Derived Small Extracellular Vesicles: A Review of the Current Status. Nanomaterials, 2021, 11, 1858.	1.9	27

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37	Understanding the influence of electrolyte aging in electrochemical anodization of titanium. Advances in Colloid and Interface Science, 2022, 302, 102615.	7.0	27
38	Estimation of anisotropic permeability in trabecular bone based on microCT imaging and pore-scale fluid dynamics simulations. Bone Reports, 2017, 6, 129-139.	0.2	25
39	Localized drug delivery of selenium (Se) using nanoporous anodic aluminium oxide for bone implants. Journal of Materials Chemistry B, 2015, 3, 7090-7098.	2.9	22
40	Synthesis of Carbon Nanotubeâ€“Nanotubular Titania Composites by Catalyst-Free CVD Process: Insights into the Formation Mechanism and Photocatalytic Properties. ACS Applied Materials & Interfaces, 2015, 7, 28361-28368.	4.0	21
41	Research to Clinics: Clinical Translation Considerations for Anodized Nano-Engineered Titanium Implants. ACS Biomaterials Science and Engineering, 2022, 8, 4077-4091.	2.6	21
42	Influence of sterilization on the performance of anodized nanoporous titanium implants. Materials Science and Engineering C, 2021, 130, 112429.	3.8	20
43	Titania Nanotubes for Local Drug Delivery from Implant Surfaces. Springer Series in Materials Science, 2015, , 307-355.	0.4	19
44	Untwining the topography-chemistry interdependence to optimize the bioactivity of nano-engineered titanium implants. Applied Surface Science, 2021, 570, 151083.	3.1	19
45	Bed of nails: bioinspired nano-texturing towards antibacterial and bioactivity functions. Materials Today Advances, 2021, 12, 100176.	2.5	19
46	In situ hydrothermal transformation of titanium surface into lithium-doped continuous nanowire network towards augmented bioactivity. Applied Surface Science, 2020, 505, 144604.	3.1	18
47	Micro + Nano: Conserving the Gold Standard Microroughness to Nanoengineer Zirconium Dental Implants. ACS Biomaterials Science and Engineering, 2021, 7, 3069-3074.	2.6	18
48	Nano-engineered titanium for enhanced bone therapy. Proceedings of SPIE, 2013, , .	0.8	17
49	In Situ Transformation of Chitosan Films into Microtubular Structures on the Surface of Nanoengineered Titanium Implants. Biomacromolecules, 2016, 17, 1261-1271.	2.6	15
50	Fresh or aged: Short time anodization of titanium to understand the influence of electrolyte aging on titania nanopores. Journal of Materials Science and Technology, 2022, 119, 245-256.	5.6	15
51	Towards Clinical Translation: Optimized Fabrication of Controlled Nanostructures on Implant-Relevant Curved Zirconium Surfaces. Nanomaterials, 2021, 11, 868.	1.9	14
52	Electrochemically nano-engineered titanium: Influence of dual micro-nanotopography of anisotropic nanopores on bioactivity and antimicrobial activity. Materials Today Advances, 2022, 15, 100256.	2.5	11
53	Therapeutic outcomes of non-grafted and platelet concentrations-grafted transcrestal maxillary sinus elevation (TSFE): a systematic review and meta-analysis. Scientific Reports, 2020, 10, 5935.	1.6	10
54	Green Synthesis of Three-Dimensional Hybrid N-Doped ORR Electro-Catalysts Derived from Apricot Sap. Materials, 2018, 11, 205.	1.3	8

#	Article	IF	Citations
55	Novel Nano-Engineered Biomaterials for Bone Tissue Engineering. Nanomaterials, 2022, 12, 333.	1.9	5
56	Influence of Bioinspired Lithium-Doped Titanium Implants on Gingival Fibroblast Bioactivity and Biofilm Adhesion. Nanomaterials, 2021, 11, 2799.	1.9	4
57	Highly ordered titania (TiO<inf>2</inf>) nanotube arrays fabricated by electrochemical self-ordering process toward development of implantable drug delivery devices with triggered drug release. , 2010, , .		1
58	Nano-Engineering Solutions for Dental Implant Applications. Nanomaterials, 2022, 12, 272.	1.9	1