

# Tushar Kumeria

## List of Publications by Year in descending order

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109  
papers

4,115  
citations

81900

39  
h-index

128289

60  
g-index

110  
all docs

110  
docs citations

110  
times ranked

4431  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoporous anodic aluminum oxide for chemical sensing and biosensors. <i>TrAC - Trends in Analytical Chemistry</i> , 2013, 44, 25-38.	11.4	208
2	Paper-based microfluidic analytical devices for colorimetric detection of toxic ions: A review. <i>TrAC - Trends in Analytical Chemistry</i> , 2017, 93, 212-227.	11.4	155
3	Nanoporous Anodic Alumina Platforms: Engineered Surface Chemistry and Structure for Optical Sensing Applications. <i>Sensors</i> , 2014, 14, 11878-11918.	3.8	132
4	Frontiers in the treatment of glioblastoma: Past, present and emerging. <i>Advanced Drug Delivery Reviews</i> , 2021, 171, 108-138.	13.7	125
5	Advanced biopolymer-coated drug-releasing titania nanotubes (TNTs) implants with simultaneously enhanced osteoblast adhesion and antibacterial properties. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 130, 255-263.	5.0	113
6	Label-free reflectometric interference microchip biosensor based on nanoporous alumina for detection of circulating tumour cells. <i>Biosensors and Bioelectronics</i> , 2012, 35, 167-173.	10.1	112
7	Drug-releasing implants: current progress, challenges and perspectives. <i>Journal of Materials Chemistry B</i> , 2014, 2, 6157-6182.	5.8	112
8	Nanoporous Anodic Alumina: A Versatile Platform for Optical Biosensors. <i>Materials</i> , 2014, 7, 4297-4320.	2.9	103
9	Encapsulation and Controlled Release of Resveratrol Within Functionalized Mesoporous Silica Nanoparticles for Prostate Cancer Therapy. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 225.	4.1	98
10	Graphene oxide decorated diatom silica particles as new nano-hybrids: towards smart natural drug microcarriers. <i>Journal of Materials Chemistry B</i> , 2013, 1, 6302.	5.8	92
11	Direct Z-scheme of Cu <sub>2</sub> O/TiO <sub>2</sub> enhanced self-cleaning, antibacterial activity, and UV protection of cotton fiber under sunlight. <i>Applied Surface Science</i> , 2019, 479, 953-962.	6.1	90
12	Structural and Optical Nanoengineering of Nanoporous Anodic Alumina Rugate Filters for Real-Time and Label-Free Biosensing Applications. <i>Analytical Chemistry</i> , 2014, 86, 1837-1844.	6.5	89
13	Naturally available diatomite and their surface modification for the removal of hazardous dye and metal ions: A review. <i>Advances in Colloid and Interface Science</i> , 2020, 282, 102198.	14.7	89
14	Porous silicon for drug delivery applications and theranostics: recent advances, critical review and perspectives. <i>Expert Opinion on Drug Delivery</i> , 2017, 14, 1407-1422.	5.0	86
15	Diatom Silica for Biomedical Applications: Recent Progress and Advances. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800552.	7.6	77
16	Silica nanoparticles: A promising platform for enhanced oral delivery of macromolecules. <i>Journal of Controlled Release</i> , 2020, 326, 544-555.	9.9	75
17	Nanoporous Anodic Alumina Rugate Filters for Sensing of Ionic Mercury: Toward Environmental Point-of-Analysis Systems. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 12971-12978.	8.0	72
18	Ultrasensitive Nanoporous Interferometric Sensor for Label-Free Detection of Gold(III) Ions. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 11783-11790.	8.0	68

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19	Controlling interferometric properties of nanoporous anodic aluminium oxide. <i>Nanoscale Research Letters</i> , 2012, 7, 88.	5.7	67
20	Optically Optimized Photoluminescent and Interferometric Biosensors Based on Nanoporous Anodic Alumina: A Comparison. <i>Analytical Chemistry</i> , 2013, 85, 7904-7911.	6.5	65
21	Advanced Structural Engineering of Nanoporous Photonic Structures: Tailoring Nanopore Architecture to Enhance Sensing Properties. <i>ACS Photonics</i> , 2014, 1, 1298-1306.	6.6	59
22	Biomimetic Nanoporous Anodic Alumina Distributed Bragg Reflectors in the Form of Films and Microsized Particles for Sensing Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 19816-19824.	8.0	58
23	Realisation and advanced engineering of true optical rugate filters based on nanoporous anodic alumina by sinusoidal pulse anodisation. <i>Nanoscale</i> , 2016, 8, 1360-1373.	5.6	56
24	Efficient photoacoustic imaging using indocyanine green (ICG) loaded functionalized mesoporous silica nanoparticles. <i>Biomaterials Science</i> , 2019, 7, 5002-5015.	5.4	56
25	Ceria decorated porous diatom-xerogel as an effective adsorbent for the efficient removal of Eriochrome Black T. <i>Chemosphere</i> , 2020, 238, 124692.	8.2	56
26	Modified titania nanotubes for decontamination of sulphur mustard. <i>Journal of Hazardous Materials</i> , 2009, 167, 1192-1197.	12.4	54
27	Environmental Copper Sensor Based on Polyethylenimine-Functionalized Nanoporous Anodic Alumina Interferometers. <i>Analytical Chemistry</i> , 2019, 91, 5011-5020.	6.5	51
28	Interferometric nanoporous anodic alumina photonic coatings for optical sensing. <i>Nanoscale</i> , 2015, 7, 7770-7779.	5.6	49
29	Polymer-templated Mesoporous Silica Nanoparticle Core-Shell Nanofibers as a Dual-Drug-Delivery System for Guided Tissue Regeneration. <i>ACS Applied Nano Materials</i> , 2020, 3, 1457-1467.	5.0	49
30	Self-ordering Electrochemistry: A Simple Approach for Engineering Nanopore and Nanotube Arrays for Emerging Applications. <i>Australian Journal of Chemistry</i> , 2011, 64, 294.	0.9	48
31	Morphology-controlled MnO <sub>2</sub> -graphene oxide-diatomaceous earth 3-dimensional (3D) composites for high-performance supercapacitors. <i>Dalton Transactions</i> , 2016, 45, 936-942.	3.3	45
32	Cathodically activated Au/TiO <sub>2</sub> nanocomposite synthesized by a new facile solvothermal method: An efficient electrocatalyst with Pt-like activity for hydrogen generation. <i>Electrochimica Acta</i> , 2018, 290, 404-418.	5.2	45
33	Enhanced Solubility, Permeability and Anticancer Activity of Vorinostat Using Tailored Mesoporous Silica Nanoparticles. <i>Pharmaceutics</i> , 2018, 10, 283.	4.5	44
34	In situ monitored engineering of inverted nanoporous anodic alumina funnels: on the precise generation of 3D optical nanostructures. <i>Nanoscale</i> , 2014, 6, 9991-9999.	5.6	43
35	Advances and future perspectives in epithelial drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2022, 186, 114293.	13.7	43
36	Self-Reporting Photoluminescent Porous Silicon Microparticles for Drug Delivery. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 3200-3209.	8.0	42

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37	Rationally Designed Dendritic Silica Nanoparticles for Oral Delivery of Exenatide. <i>Pharmaceutics</i> , 2019, 11, 418.	4.5	42
38	Amine activated diatom xerogel hybrid material for efficient removal of hazardous dye. <i>Materials Chemistry and Physics</i> , 2019, 235, 121738.	4.0	42
39	On The Generation of Interferometric Colors in High Purity and Technical Grade Aluminum: An Alternative Green Process for Metal Finishing Industry. <i>Electrochimica Acta</i> , 2015, 174, 672-681.	5.2	41
40	Facile Synthesis of Optical Microcavities by a Rationally Designed Anodization Approach: Tailoring Photonic Signals by Nanopore Structure. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9879-9888.	8.0	41
41	Dissolvable polymer microneedles for drug delivery and diagnostics. <i>Journal of Controlled Release</i> , 2022, 347, 561-589.	9.9	41
42	Oral Delivery of Î²-Lactoglobulin-Nanosphere-Encapsulated Resveratrol Alleviates Inflammation in Winnie Mice with Spontaneous Ulcerative Colitis. <i>Molecular Pharmaceutics</i> , 2021, 18, 627-640.	4.6	39
43	Photoswitchable Membranes Based on Peptide-Modified Nanoporous Anodic Alumina: Toward Smart Membranes for On-Demand Molecular Transport. <i>Advanced Materials</i> , 2015, 27, 3019-3024.	21.0	38
44	Isolation of circulating tumour cells by physical means in a microfluidic device: a review. <i>RSC Advances</i> , 2015, 5, 89745-89762.	3.6	38
45	Naturally Derived Iron Oxide Nanowires from Bacteria for Magnetically Triggered Drug Release and Cancer Hyperthermia in 2D and 3D Culture Environments: Bacteria Biofilm to Potent Cancer Therapeutic. <i>Biomacromolecules</i> , 2016, 17, 2726-2736.	5.4	38
46	Oriented Nanofibrous Polymer Scaffolds Containing Protein-Loaded Porous Silicon Generated by Spray Nebulization. <i>Advanced Materials</i> , 2018, 30, e1706785.	21.0	38
47	Real-time and in Situ Drug Release Monitoring from Nanoporous Implants under Dynamic Flow Conditions by Reflectometric Interference Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 5436-5442.	8.0	37
48	From The Mine to Cancer Therapy: Natural and Biodegradable Theranostic Silicon Nanocarriers from Diatoms for Sustained Delivery of Chemotherapeutics. <i>Advanced Healthcare Materials</i> , 2016, 5, 2667-2678.	7.6	37
49	Multifunctional microspherical magnetic and pH responsive carriers for combination anticancer therapy engineered by droplet-based microfluidics. <i>Journal of Materials Chemistry B</i> , 2017, 5, 4097-4109.	5.8	36
50	A nanoporous interferometric micro-sensor for biomedical detection of volatile sulphur compounds. <i>Nanoscale Research Letters</i> , 2011, 6, 634.	5.7	35
51	Luminescent Silicon Diatom Replicas: Self-Reporting and Degradable Drug Carriers with Biologically Derived Shape for Sustained Delivery of Therapeutics. <i>Advanced Functional Materials</i> , 2015, 25, 5107-5116.	14.9	35
52	Nanocarriers for oral delivery of biologics: small carriers for big payloads. <i>Trends in Pharmacological Sciences</i> , 2021, 42, 957-972.	8.7	35
53	Rational Design of Photonic Dust from Nanoporous Anodic Alumina Films: A Versatile Photonic Nanotool for Visual Sensing. <i>Scientific Reports</i> , 2015, 5, 12893.	3.3	31
54	Carbon nanotube-nanoporous anodic alumina composite membranes with controllable inner diameters and surface chemistry: Influence on molecular transport and chemical selectivity. <i>Carbon</i> , 2015, 93, 681-692.	10.3	31

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55	Iron Oxide Nanowires from Bacteria Biofilm as an Efficient Visible-Light Magnetic Photocatalyst. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 20110-20119.	8.0	31
56	Synthesis of well-organised carbon nanotube membranes from non-degradable plastic bags with tuneable molecular transport: Towards nanotechnological recycling. <i>Carbon</i> , 2013, 63, 423-433.	10.3	30
57	Nanomaterials: The New Antimicrobial Magic Bullet. <i>ACS Infectious Diseases</i> , 2022, 8, 693-712.	3.8	28
58	One-Step Synthesis of pH-Responsive Eudragit <sup>®</sup> -Mesoporous Silica Nanocomposites Enable Colonic Delivery of Glucocorticoids for the Treatment of Inflammatory Bowel Disease. <i>Advanced Therapeutics</i> , 2021, 4, 2000165.	3.2	26
59	Frit-free PDMS microfluidic device for chromatographic separation and on-chip detection. <i>RSC Advances</i> , 2014, 4, 15276-15280.	3.6	25
60	Label-Free Real-Time Quantification of Enzyme Levels by Interferometric Spectroscopy Combined with Gelatin-Modified Nanoporous Anodic Alumina Photonic Films. <i>Analytical Chemistry</i> , 2015, 87, 9016-9024.	6.5	23
61	Engineering mesoporous silica nanoparticles towards oral delivery of vancomycin. <i>Journal of Materials Chemistry B</i> , 2021, 9, 7145-7166.	5.8	23
62	Microfluidic assembly of pomegranate-like hierarchical microspheres for efflux regulation in oral drug delivery. <i>Acta Biomaterialia</i> , 2021, 126, 277-290.	8.3	23
63	Reflective interferometric gas sensing using nanoporous anodic aluminium oxide (AAO). <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 406-408.	2.4	22
64	Localized drug delivery of selenium (Se) using nanoporous anodic aluminium oxide for bone implants. <i>Journal of Materials Chemistry B</i> , 2015, 3, 7090-7098.	5.8	22
65	Enhanced hydrogen evolution reaction on highly stable titania <sup>®</sup> -supported PdO and Eu <sub>2</sub> O <sub>3</sub> nanocomposites in a strong alkaline solution. <i>International Journal of Energy Research</i> , 2019, 43, 5367-5383.	4.5	22
66	Oral meropenem for superbugs: challenges and opportunities. <i>Drug Discovery Today</i> , 2021, 26, 551-560.	6.4	22
67	Liquid CO <sub>2</sub> Formulated Mesoporous Silica Nanoparticles for pH-Responsive Oral Delivery of Meropenem. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 1836-1853.	5.2	22
68	Moldless Printing of Silicone Lenses with Embedded Nanostructured Optical Filters. <i>Advanced Functional Materials</i> , 2020, 30, 1906836.	14.9	19
69	Enteric Polymer-Coated Porous Silicon Nanoparticles for Site-Specific Oral Delivery of IgA Antibody. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 4140-4152.	5.2	18
70	Engineered Therapeutic-Releasing Nanoporous Anodic Alumina-Aluminum Wires with Extended Release of Therapeutics. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 3846-3853.	8.0	17
71	Succinylated $\beta$ -Lactoglobuline-Functionalized Multiwalled Carbon Nanotubes with Improved Colloidal Stability and Biocompatibility. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 3361-3372.	5.2	17
72	PLGA encapsulated $\beta$ -cyclodextrin-meropenem inclusion complex formulation for oral delivery. <i>International Journal of Pharmaceutics</i> , 2021, 597, 120280.	5.2	17

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73	Role of drug delivery technologies in the success of COVID-19 vaccines: a perspective. <i>Drug Delivery and Translational Research</i> , 2022, 12, 2581-2588.	5.8	17
74	Visual Sensor for Sterilization of Polymer Fixtures Using Embedded Mesoporous Silicon Photonic Crystals. <i>ACS Sensors</i> , 2018, 3, 143-150.	7.8	14
75	Nanoporous photonic crystals with tailored surface chemistry for ionic copper sensing. <i>Journal of Materials Chemistry C</i> , 2019, 7, 12278-12289.	5.5	14
76	Supercritical carbon dioxide assisted complexation of benzimidazole: $\beta$ -cyclodextrin for improved dissolution. <i>International Journal of Pharmaceutics</i> , 2021, 596, 120240.	5.2	13
77	Ultra-bright green carbon dots with excitation-independent fluorescence for bioimaging. <i>Journal of Nanostructure in Chemistry</i> , 2023, 13, 377-387.	9.1	13
78	Mesopores silica nanotubes-based sensors for the highly selective and rapid detection of Fe <sup>2+</sup> ions in wastewater, boiler system units and biological samples. <i>Analytica Chimica Acta</i> , 2021, 1180, 338860.	5.4	12
79	Electrochemical Etching Methods for Producing Porous Silicon. <i>Springer Series in Materials Science</i> , 2015, , 1-36.	0.6	11
80	Crystalline ZnO and ZnO / TiO <sub>2</sub> nanoparticles derived from tert-butyl $\beta$ -butyl N-(2 mercaptoethyl) carbamatozinc( II ) chelate: Electrocatalytic studies for H <sub>2</sub> generation in alkaline electrolytes. <i>International Journal of Energy Research</i> , 2020, 44, 6725-6744.	4.5	11
81	Understanding the relationship between solubility and permeability of $\beta$ -cyclodextrin-based systems embedded with poorly aqueous soluble benzimidazole. <i>International Journal of Pharmaceutics</i> , 2022, 616, 121487.	5.2	11
82	Skin biomechanics: Breaking the dermal barriers with microneedles. , 2022, 1, 9130002.		10
83	Protein Nanoparticles for Enhanced Oral Delivery of Coenzyme-Q10: <i>in Vitro</i> and <i>in Silico</i> Studies. <i>ACS Biomaterials Science and Engineering</i> , 2023, 9, 2846-2856.	5.2	9
84	Influence of PEGylated porous silicon nanoparticles on permeation and efflux of an orally administered antibiotic. <i>Materials Today Advances</i> , 2022, 13, 100210.	5.2	7
85	Experimental and statistical investigation of adsorption mechanism of toxic chromium on Al-Fe-Zn oxide nanocomposite and successful application on industrial wastewater. <i>International Journal of Environmental Analytical Chemistry</i> , 0, , 1-15.	3.3	6
86	Nanoporous Anodic Alumina for Optical Biosensing. <i>Springer Series in Materials Science</i> , 2015, , 219-247.	0.6	5
87	Ternary Au@TiO <sub>2</sub> /Fe <sub>2</sub> O <sub>3</sub> Nanocomposite with Nanoring Structure: Synthesis, Characterization and Photocatalytic Activity. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2021, 31, 4372-4379.	3.7	5
88	Real-time detection of per-fluoroalkyl substance (PFAS) self-assembled monolayers in nanoporous interferometers. <i>Sensors and Actuators B: Chemical</i> , 2022, 355, 131340.	7.8	5
89	Rapid Processing of Wafer-Scale Anti-Reflecting 3D Hierarchical Structures on Silicon and Its Templation. <i>Materials</i> , 2018, 11, 2586.	2.9	4
90	An improved strategy for transferring and adhering thin nanoporous alumina membranes onto conducting transparent electrodes for template assisted electrodeposition of high aspect ratio semiconductor nanowires with increased optical absorption. <i>Nanotechnology</i> , 2019, 30, 095301.	2.6	4

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91	Size, shape and surface charge considerations of orally delivered nanomedicines. , 2020, , 143-176.		4
92	Chemical Functionalization of Inner Walls of Carbon Nanotubes with Long-Chain Aliphatic Amines. Nanoscience and Nanotechnology Letters, 2017, 9, 712-718.	0.4	4
93	3D printing: potential clinical applications for personalised solid dose medications. Medical Journal of Australia, 2022, 216, 64-67.	1.7	4
94	Sprayable Sense: Sprayable Nanofibers for On-site Chemical Sensing. Advanced Functional Materials, 0, , 2103496.	14.9	4
95	Microcarriers: Luminescent Silicon Diatom Replicas: Self-Reporting and Degradable Drug Carriers with Biologically Derived Shape for Sustained Delivery of Therapeutics (Adv. Funct. Mater. 32/2015). Advanced Functional Materials, 2015, 25, 5240-5240.	14.9	3
96	Nanoporous Alumina Membranes for Chromatography and Molecular Transporting. Springer Series in Materials Science, 2015, , 293-318.	0.6	3
97	Porous Silicon Particles for Cancer Therapy and Bioimaging. Nanomedicine and Nanotoxicology, 2018, , 305-340.	0.2	3
98	Sustained release ketamine-loaded porous silicon-PLGA microparticles prepared by an optimized supercritical CO2 process. Drug Delivery and Translational Research, 2021, , 1.	5.8	3
99	Bioinspired Microchip Nanoporous Interferometric Sensor for Sensing and Biosensing Applications. Micro and Nanosystems, 2011, 3, 290-295.	0.6	3
100	Fluorescence Analysis: From Sensing to Imaging. Journal of Analytical Methods in Chemistry, 2018, 2018, 1-2.	1.6	2
101	Reflectometric interference biosensing using nanopores: integration into microfluidics. , 2011, , .		1
102	Sensing and Biosensing Applications of Nanoporous Anodic Alumina. Springer Series in Materials Science, 2015, , 187-218.	0.6	1
103	Modulating molecular transport across peptide-modified nanoporous alumina membranes with light. Proceedings of SPIE, 2016, , .	0.8	1
104	Optimisation of reflective interferometric properties of nanoporous anodic aluminium oxide (AAO) for biosensing applications. , 2010, , .		0
105	Back Cover: Reflective interferometric gas sensing using nanoporous anodic aluminium oxide (AAO) (Phys. Status Solidi RRL 10(11/2011). Physica Status Solidi - Rapid Research Letters, 2011, 5, .	2.4	0
106	Membranes: Photoswitchable Membranes Based on Peptide-Modified Nanoporous Anodic Alumina: Toward Smart Membranes for On-demand Molecular Transport (Adv. Mater. 19/2015). Advanced Materials, 2015, 27, 2950-2950.	21.0	0
107	Editorial: Engineered Nanoporous Materials for Chemical Sensors and Biosensors. Frontiers in Chemistry, 2020, 8, 595931.	3.6	0
108	Spectral and Structural Characterization of Metformin with Different Counter Anions: Comparative Analysis and DFT Calculations. Asian Journal of Chemistry, 2021, 33, 2817-2825.	0.3	0

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109	Luminescent Porous Silicon Nanoparticles for Continuous Wave and Time-Gated Photoluminescence Imaging. <i>Methods in Molecular Biology</i> , 2019, 2054, 185-198.	0.9	0