Balaji Sitharaman

List of Publications by Year
in descending order

93 papers	6,882 citations	71102 41 h-index	58581 82 g-index
94 all docs	94 docs citations	94 times ranked	8391 citing authors

#	Article	IF	Citations
1	The Differential Cytotoxicity of Water-Soluble Fullerenes. Nano Letters, 2004, 4, 1881-1887.	9.1	985
2	Water-Soluble Gadofullerenes:Â Toward High-Relaxivity, pH-Responsive MRI Contrast Agents. Journal of the American Chemical Society, 2005, 127, 799-805.	13.7	341
3	Superparamagnetic gadonanotubes are high-performance MRI contrast agents. Chemical Communications, 2005, , 3915.	4.1	310
4	Fabrication of porous ultra-short single-walled carbon nanotube nanocomposite scaffolds for bone tissue engineering. Biomaterials, 2007, 28, 4078-4090.	11.4	287
5	A Fullereneâˆ'Paclitaxel Chemotherapeutic:â€‰ Synthesis, Characterization, and Study of Biological Activity in Tissue Culture. Journal of the American Chemical Society, 2005, 127, 12508-12509.	13.7	268
6	Cell specific cytotoxicity and uptake of graphene nanoribbons. Biomaterials, 2013, 34, 283-293.	11.4	265
7	Two-Dimensional Nanostructure-Reinforced Biodegradable Polymeric Nanocomposites for Bone Tissue Engineering. Biomacromolecules, 2013, 14, 900-909.	5.4	262
8	In vivo biocompatibility of ultra-short single-walled carbon nanotube/biodegradable polymer nanocomposites for bone tissue engineering. Bone, 2008, 43, 362-370.	2.9	241
9	Toxicology of graphene-based nanomaterials. Advanced Drug Delivery Reviews, 2016, 105, 109-144.	13.7	235
10	The effects of graphene nanostructures on mesenchymal stem cells. Biomaterials, 2014, 35, 4863-4877.	11.4	209
11	Single-walled carbon nanotubes as a multimodal-thermoacoustic and photoacoustic-contrast agent. Journal of Biomedical Optics, 2009, 14, 034018.	2.6	151
12	Tungsten disulfide nanotubes reinforced biodegradable polymers for bone tissue engineering. Acta Biomaterialia, 2013, 9, 8365-8373.	8.3	143
13	Gd@C60[C(COOH)2]10and Gd@C60(OH)x:Â Nanoscale Aggregation Studies of Two Metallofullerene MRI Contrast Agents in Aqueous Solution. Nano Letters, 2004, 4, 2373-2378.	9.1	135
14	Toward Carbon-Nanotube-Based Theranostic Agents for Microwave Detection and Treatment of Breast Cancer: Enhanced Dielectric and Heating Response of Tissue-Mimicking Materials. IEEE Transactions on Biomedical Engineering, 2010, 57, 1831-1834.	4.2	129
15	Fullerenols Revisited as Stable Radical Anions. Journal of the American Chemical Society, 2004, 126, 12055-12064.	13.7	120
16	<i>In vivo</i>carbon nanotube-enhanced non-invasive photoacoustic mapping of the sentinel lymph node. Physics in Medicine and Biology, 2009, 54, 3291-3301.	3.0	120
17	Destroying Gadofullerene Aggregates by Salt Addition in Aqueous Solution of Gd@C60(OH)xand Gd@C60[C(COOH2)]10. Journal of the American Chemical Society, 2005, 127, 9368-9369.	13.7	119
18	Dose ranging, expanded acute toxicity and safety pharmacology studies for intravenously administered functionalized graphene nanoparticle formulations. Biomaterials, 2014, 35, 7022-7031.	11.4	115

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19	Graphene-based contrast agents for photoacoustic and thermoacoustic tomography. Photoacoustics, 2013, 1, 62-67.	7.8	104
20	Physicochemical characterization of a novel graphene-based magnetic resonance imaging contrast agent. International Journal of Nanomedicine, 2013, 8, 2821.	6.7	95
21	Synthesis, characterization, in vitro phantom imaging, and cytotoxicity of a novel graphene-based multimodal magnetic resonance imaging-X-ray computed tomography contrast agent. Journal of Materials Chemistry B, 2014, 2, 3519-3530.	5.8	95
22	Graphene nanoribbons as a drug delivery agent for lucanthone mediated therapy of glioblastoma multiforme. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 109-118.	3.3	95
23	Water-Soluble Fullerene (C₆₀) Derivatives as Nonviral Gene-Delivery Vectors. Molecular Pharmaceutics, 2008, 5, 567-578.	4.6	94
24	Enzymatic degradation of oxidized and reduced graphene nanoribbons by lignin peroxidase. Journal of Materials Chemistry B, 2014, 2, 6354-6362.	5.8	90
25	<i>In vitro</i> cytotoxicity of singleâ€walled carbon nanotube/biodegradable polymer nanocomposites. Journal of Biomedical Materials Research - Part A, 2008, 86A, 813-823.	4.0	75
26	Degradation of Graphene by Hydrogen Peroxide. Particle and Particle Systems Characterization, 2014, 31, 745-750.	2.3	74
27	Fabrication and characterization of three-dimensional macroscopic all-carbon scaffolds. Carbon, 2013, 53, 90-100.	10.3	72
28	Gadofullerenes as nanoscale magnetic labels for cellular MRI. Contrast Media and Molecular Imaging, 2007, 2, 139-146.	0.8	71
29	Gadofullerenes and Gadonanotubes: A New Paradigm for High-Performance Magnetic Resonance Imaging Contrast Agent Probes. Journal of Biomedical Nanotechnology, 2007, 3, 342-352.	1.1	68
30	Injectable in situ cross-linkable nanocomposites of biodegradable polymers and carbon nanostructures for bone tissue engineering. Journal of Biomaterials Science, Polymer Edition, 2007, 18, 655-671.	3.5	68
31	Graphene-based platforms for cancer therapeutics. Therapeutic Delivery, 2016, 7, 101-116.	2.2	66
32	Understanding Paramagnetic Relaxation Phenomena for Water-Soluble Gadofullerenes. Journal of Physical Chemistry C, 2007, 111, 5633-5639.	3.1	63
33	In Vitro Hematological and In Vivo Vasoactivity Assessment of Dextran Functionalized Graphene. Scientific Reports, 2013, 3, 2584.	3.3	61
34	Porous three-dimensional carbon nanotube scaffolds for tissue engineering. Journal of Biomedical Materials Research - Part A, 2015, 103, 3212-3225.	4.0	61
35	Physicochemical Characterization, and Relaxometry Studies of Micro-Graphite Oxide, Graphene Nanoplatelets, and Nanoribbons. PLoS ONE, 2012, 7, e38185.	2.5	57
36	MULTIFUNCTIONAL FULLERENE- AND METALLOFULLERENE-BASED NANOBIOMATERIALS. Nano LIFE, 2013, 03, 1342003.	0.9	52

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37	Synthesis and Conformational Evaluation of a Novel Gene Delivery Vector for Human Mesenchymal Stem Cells. Biomacromolecules, 2008, 9, 818-827.	5.4	51
38	Boron nitride nanotubes and nanoplatelets as reinforcing agents of polymeric matrices for bone tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 406-419.	3.4	49
39	Multiscale Photoacoustic Microscopy of Single-Walled Carbon Nanotube-Incorporated Tissue Engineering Scaffolds. Tissue Engineering - Part C: Methods, 2012, 18, 310-317.	2.1	48
40	Gadonanotubes as new high-performance MRI contrast agents. International Journal of Nanomedicine, 2006, 1, 291-5.	6.7	43
41	Nanoscale Aggregation Properties of Neuroprotective Carboxyfullerene (C3) in Aqueous Solution. Nano Letters, 2004, 4, 1759-1762.	9.1	42
42	Multimodal Ultrasound-Photoacoustic Imaging of Tissue Engineering Scaffolds and Blood Oxygen Saturation In and Around the Scaffolds. Tissue Engineering - Part C: Methods, 2014, 20, 440-449.	2.1	41
43	Structural disruption increases toxicity of graphene nanoribbons. Journal of Applied Toxicology, 2014, 34, 1235-1246.	2.8	41
44	Detection, Mapping, and Quantification of Single Walled Carbon Nanotubes in Histological Specimens with Photoacoustic Microscopy. PLoS ONE, 2012, 7, e35064.	2.5	35
45	Two- and Three-Dimensional All-Carbon Nanomaterial Assemblies for Tissue Engineering and Regenerative Medicine. Annals of Biomedical Engineering, 2016, 44, 2020-2035.	2.5	34
46	The Effect of Nanoparticle-Enhanced Photoacoustic Stimulation on Multipotent Marrow Stromal Cells. ACS Nano, 2009, 3, 2065-2072.	14.6	33
47	<i>In vitro</i>cytocompatibility of one-dimensional and two-dimensional nanostructure-reinforced biodegradable polymeric nanocomposites. Journal of Biomedical Materials Research - Part A, 2015, 103, 2309-2321.	4.0	33
48	Gene delivery to mammalian cells using a graphene nanoribbon platform. Journal of Materials Chemistry B, 2017, 5, 2347-2354.	5.8	32
49	Cytotoxicity, cytocompatibility, cellâ€labeling efficiency, and <i>in vitro</i> cellular magnetic resonance imaging of gadoliniumâ€catalyzed singleâ€walled carbon nanotubes. Journal of Biomedical Materials Research - Part A, 2013, 101, 3580-3591.	4.0	31
50	The magnetic, relaxometric, and optical properties of gadolinium-catalyzed single walled carbon nanotubes. Journal of Applied Physics, 2013, 113, 134308.	2.5	28
51	Graphene nanoribbons elicit cell specific uptake and delivery via activation of epidermal growth factor receptor enhanced by human papillomavirus E5 protein. Acta Biomaterialia, 2014, 10, 4494-4504.	8.3	28
52	Time-resolved red luminescence from europium-catalyzed single walled carbon nanotubes. Chemical Communications, 2011, 47, 1607-1609.	4.1	27
53	Towards An Advanced Graphene-Based Magnetic Resonance Imaging Contrast Agent: Sub-acute Toxicity and Efficacy Studies in Small Animals. Scientific Reports, 2015, 5, 17182.	3.3	27
54	Toward singleâ€walled carbon nanotubeâ€"gadolinium complex as advanced MRI contrast agents: Pharmacodynamics and global genomic response in small animals. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101B, 1039-1049.	3.4	26

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55	Quantification of single-cell nanoparticle concentrations and the distribution of these concentrations in cell population. Journal of the Royal Society Interface, 2014, 11, 20131152.	3.4	26
56	<i>In Vivo</i>Magnetic Resonance Imaging of the Distribution Pattern of Gadonanotubes Released from a Degrading Poly(Lactic-Co-Glycolic Acid) Scaffold. Tissue Engineering - Part C: Methods, 2011, 17, 19-26.	2.1	24
57	Magnetic resonance imaging studies on gadonanotubeâ€reinforced biodegradable polymer nanocomposites. Journal of Biomedical Materials Research - Part A, 2010, 93A, 1454-1462.	4.0	23
58	A Novel Nanoparticle-Enhanced Photoacoustic Stimulus for Bone Tissue Engineering. Tissue Engineering - Part A, 2011, 17, 1851-1858.	3.1	23
59	Luminescent single-walled carbon nanotube-sensitized europium nanoprobes for cellular imaging. International Journal of Nanomedicine, 2012, 7, 1953.	6.7	22
60	Interactions of 1D- and 2D-layered inorganic nanoparticles with fibroblasts and human mesenchymal stem cells. Nanomedicine, 2015, 10, 1693-1706.	3.3	22
61	Gadolinium and europium catalyzed growth of single-walled carbon nanotubes. Carbon, 2009, 47, 3139-3142.	10.3	21
62	Graphene Nanoribbon-Based Platform for Highly Efficacious Nuclear Gene Delivery. ACS Biomaterials Science and Engineering, 2016, 2, 798-808.	5.2	21
63	Twoâ€dimensional graphene oxideâ€reinforced porous biodegradable polymeric nanocomposites for bone tissue engineering. Journal of Biomedical Materials Research - Part A, 2019, 107, 1143-1153.	4.0	20
64	Threeâ€dimensional macroporous graphene scaffolds for tissue engineering. Journal of Biomedical Materials Research - Part A, 2017, 105, 73-83.	4.0	19
65	Interaction of graphene nanoribbons with components of the blood vascular system. Future Science OA, 2015, 1, .	1.9	18
66	Fabrication and Cytocompatibility of In Situ Crosslinked Carbon Nanomaterial Films. Scientific Reports, 2015, 5, 10261.	3.3	18
67	Applications of Carbon Nanotubes in Biomedical Studies. Methods in Molecular Biology, 2011, 726, 223-241.	0.9	16
68	Threeâ€dimensional carbon nanotube scaffolds for longâ€term maintenance and expansion of human mesenchymal stem cells. Journal of Biomedical Materials Research - Part A, 2017, 105, 1927-1939.	4.0	15
69	<i>In Vitro</i>Bioactivity of One- and Two-Dimensional Nanoparticle-Incorporated Bone Tissue Engineering Scaffolds. Tissue Engineering - Part A, 2018, 24, 641-652.	3.1	14
70	Clinically Relevant CNT Dispersions With Exceptionally High Dielectric Properties for Microwave Theranostic Applications. IEEE Transactions on Biomedical Engineering, 2014, 61, 2718-2723.	4.2	12
71	Vasoactive effects of stable aqueous suspensions of single walled carbon nanotubes in hamsters and mice. Nanotoxicology, 2014, 8, 867-875.	3.0	12
72	Effect of synthesis and acid purification methods on the microwave dielectric properties of single-walled carbon nanotube aqueous dispersions. Applied Physics Letters, 2013, 103, 133114.	3.3	11

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73	Dielectric characterization of carbon nanotube contrast agents for microwave breast cancer detection. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	10
74	Oxidized graphene nanoparticles as a delivery system for the proâ€apoptotic sphingolipid C₆ ceramide. Journal of Biomedical Materials Research - Part A, 2019, 107, 25-37.	4.0	10
75	Carbon Nanotubes in Regenerative Medicine. Carbon Nanostructures, 2011, , 27-39.	0.1	9
76	Sulfobutyl ether Î²â€cyclodextrin (Captisol^{Â®}) and methyl Î²â€cyclodextrin enhance and stabilize fluorescence of aqueous indocyanine green. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 1457-1464.	3.4	9
77	Recent Patents on Single-Walled Carbon Nanotubes for Biomedical Imaging, Drug Delivery and Tissue Regeneration. Recent Patents on Biomedical Engineering, 2010, 3, 86-94.	0.5	9
78	<i>In Vivo</i> Hard and Soft Tissue Response of Two-Dimensional Nanoparticle Incorporated Biodegradable Polymeric Scaffolds. ACS Biomaterials Science and Engineering, 2017, 3, 2533-2541.	5.2	8
79	Layer-by-layer, ultrasonic spray assembled 2D and 3D chemically crosslinked carbon nanotubes and graphene. Journal of Materials Research, 2017, 32, 370-382.	2.6	6
80	Delivery of long chain C₁₆ and C₂₄ ceramide in HeLa cells using oxidized graphene nanoribbons. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 1141-1156.	3.4	6
81	Nanofilm generated nonâ€pharmacological anabolic bone stimulus. Journal of Biomedical Materials Research - Part A, 2020, 108, 178-186.	4.0	5
82	Osteogenic differentiation of human adipose derived stem cells on chemically crosslinked carbon nanomaterial coatings. Journal of Biomedical Materials Research - Part A, 2018, 106, 1189-1199.	4.0	4
83	Functionalized carbon nanotube theranostic agents for microwave diagnostic imaging and thermal therapy of tumors. , 2014, , .		3
84	Nanoparticle-Facilitated Membrane Depolarization-Induced Receptor Activation: Implications on Cellular Uptake and Drug Delivery. ACS Biomaterials Science and Engineering, 2016, 2, 2153-2161.	5.2	3
85	Novel breast cancer detection system combining both thermoacoustic (TA) and photoacoustic (PA) tomography using carbon nanotubes (CNTs) as a dual contrast agent. Proceedings of SPIE, 2009, , .	0.8	2
86	In vivo photoacoustic (PA) mapping of sentinel lymph nodes (SLNs) using carbon nanotubes (CNTs) as a contrast agent. , 2009, , .		2
87	Dual-mode photoacoustic microscopy of carbon nanotube incorporated scaffolds in blood and biological tissues. , 2011, , .		2
88	Carbon Nanotechnology in Regenerative Medicine. World Scientific Series on Carbon Nanoscience, 2012, , 107-150.	0.1	2
89	Cytotoxicity of Polypropylene Fumarate Nanocomposites used in Bone Tissue Engineering. , 2013, , .		2
90	In vivo microwave dielectric spectroscopy of breast tumor xenografts with intra-tumoral injections of SWCNT dispersions. , 2013, , .		2

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91	Safety and efficacy of a high-performance graphene-based magnetic resonance imaging contrast agent for renal abnormalities. Graphene Technology, 2016, 1, 17-28.	1.9	2
92	Nanotechnology in Tissue Engineering and Regenerative Medicine. Tissue Engineering - Part B: Reviews, 2012, 18, 76-76.	4.8	1
93	Single-walled carbon nanotube facilitated photoacoustic stimulation of marrow stromal cells towards osteoblasts. , 2009, , .		0