

# Anjali Pal

## List of Publications by Year in descending order

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117  
papers

8,550  
citations

71061

41  
h-index

43868

91  
g-index

117  
all docs

117  
docs citations

117  
times ranked

10227  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photochemical Green Synthesis of Calcium-Alginate-Stabilized Ag and Au Nanoparticles and Their Catalytic Application to 4-Nitrophenol Reduction. <i>Langmuir</i> , 2010, 26, 2885-2893.	1.6	908
2	Silver nanoparticle catalyzed reduction of aromatic nitro compounds. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002, 196, 247-257.	2.3	850
3	Synthesis and Size-Selective Catalysis by Supported Gold Nanoparticles: A Study on Heterogeneous and Homogeneous Catalytic Process. <i>Journal of Physical Chemistry C</i> , 2007, 111, 4596-4605.	1.5	736
4	Nitroarene reduction: a trusted model reaction to test nanoparticle catalysts. <i>Chemical Communications</i> , 2015, 51, 9410-9431.	2.2	634
5	Catalytic Reduction of Aromatic Nitro Compounds by Coinage Metal Nanoparticles. <i>Langmuir</i> , 2001, 17, 1800-1802.	1.6	534
6	Photocatalytic degradation of a mixture of Crystal Violet (Basic Violet 3) and Methyl Red dye in aqueous suspensions using Ag <sup>+</sup> doped TiO <sub>2</sub> . <i>Dyes and Pigments</i> , 2006, 69, 224-232.	2.0	270
7	Size Controlled Synthesis of Gold Nanoparticles using Photochemically Prepared Seed Particles. <i>Journal of Nanoparticle Research</i> , 2001, 3, 257-261.	0.8	251
8	Size Regime Dependent Catalysis by Gold Nanoparticles for the Reduction of Eosin. <i>Journal of Physical Chemistry B</i> , 2001, 105, 9266-9272.	1.2	246
9	Removal of crystal violet dye from wastewater by surfactant-modified alumina. <i>Separation and Purification Technology</i> , 2005, 44, 139-144.	3.9	179
10	Photocatalytic degradation of Methyl Red dye in aqueous solutions under UV irradiation using Ag <sup>+</sup> doped TiO <sub>2</sub> . <i>Desalination</i> , 2005, 181, 91-100.	4.0	166
11	Arsenic removal from real-life groundwater by adsorption on laterite soil. <i>Journal of Hazardous Materials</i> , 2008, 151, 811-820.	6.5	138
12	Applications of chitosan in environmental remediation: A review. <i>Chemosphere</i> , 2021, 266, 128934.	4.2	131
13	Tetracycline degradation in aquatic environment by highly porous MnO <sub>2</sub> nanosheet assembly. <i>Chemical Engineering Journal</i> , 2015, 276, 155-165.	6.6	128
14	Removal of anionic surfactant from wastewater by alumina: a case study. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005, 254, 165-171.	2.3	122
15	Preparation of nanosized gold particles in a biopolymer using UV photoactivation. <i>Journal of Colloid and Interface Science</i> , 2005, 288, 396-401.	5.0	121
16	Synergistically improved adsorption of anionic surfactant and crystal violet on chitosan hydrogel beads. <i>Chemical Engineering Journal</i> , 2013, 217, 426-434.	6.6	120
17	Remarkable Facet Selective Reduction of 4-Nitrophenol by Morphologically Tailored (111) Faceted Cu <sub>2</sub> O Nanocatalyst. <i>ACS Omega</i> , 2017, 2, 1968-1984.	1.6	101
18	Surfactant-modified chitosan beads for cadmium ion adsorption. <i>International Journal of Biological Macromolecules</i> , 2017, 104, 1548-1555.	3.6	98

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19	2D materials for renewable energy storage devices: Outlook and challenges. Chemical Communications, 2016, 52, 13528-13542.	2.2	96
20	Nano silver impregnation on commercial TiO <sub>2</sub> and a comparative photocatalytic account to degrade malachite green. Separation and Purification Technology, 2012, 89, 147-159.	3.9	80
21	Green and efficient biosorptive removal of methylene blue by <i>Abelmoschus esculentus</i> seed: Process optimization and multi-variate modeling. Journal of Environmental Management, 2017, 200, 145-159.	3.8	78
22	Fixed bed column study for the removal of crystal violet (C. I. Basic Violet 3) dye from aquatic environment by surfactant-modified alumina. Dyes and Pigments, 2006, 69, 245-251.	2.0	76
23	Removal of phenol from water environment by surfactant-modified alumina through adsolubilization. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 277, 63-68.	2.3	74
24	Microporous assembly of MnO <sub>2</sub> nanosheets for malachite green degradation. Separation and Purification Technology, 2014, 134, 26-36.	3.9	71
25	Silver nanoparticle aggregate formation by a photochemical method and its application to SERS analysis. Journal of Raman Spectroscopy, 1999, 30, 199-204.	1.2	64
26	Graphitic carbon nitride based Z scheme photocatalysts: Design considerations, synthesis, characterization and applications. Journal of Industrial and Engineering Chemistry, 2019, 79, 383-408.	2.9	63
27	UV induced degradation of herbicide 2,4-D: kinetics, mechanism and effect of various conditions on the degradation. Separation and Purification Technology, 2005, 44, 121-129.	3.9	61
28	Adsorption of Anionic Surfactant on Alumina and Reuse of the Surfactant-Modified Alumina for the Removal of Crystal Violet from Aquatic Environment. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2005, 40, 167-182.	0.9	61
29	Suitable Morphology Makes CoSn(OH) <sub>6</sub> Nanostructure a Superior Electrochemical Pseudocapacitor. ACS Applied Materials & Interfaces, 2016, 8, 17987-17998.	4.0	58
30	Novel 2D/2D g-C <sub>3</sub> N <sub>4</sub> /Bi <sub>4</sub> NbO <sub>8</sub> Cl nano-composite for enhanced photocatalytic degradation of oxytetracycline under visible LED light irradiation. Journal of Colloid and Interface Science, 2021, 584, 320-331.	5.0	57
31	Photocatalytic CO <sub>2</sub> reduction over g-C <sub>3</sub> N <sub>4</sub> based heterostructures: Recent progress and prospects. Journal of Environmental Chemical Engineering, 2021, 9, 104631.	3.3	57
32	Alginate Gel-Mediated Photochemical Growth of Mono- and Bimetallic Gold and Silver Nanoclusters and Their Application to Surface-Enhanced Raman Scattering. Journal of Physical Chemistry C, 2009, 113, 7553-7560.	1.5	56
33	Methylene Blue's Cu <sub>2</sub> O Reaction Made Easy in Acidic Medium. Journal of Physical Chemistry C, 2012, 116, 25741-25747.	1.5	55
34	Recent advancements in visible-light-assisted photocatalytic removal of aqueous pharmaceutical pollutants. Clean Technologies and Environmental Policy, 2020, 22, 11-42.	2.1	54
35	Utilization of silica gel waste for adsorption of cationic surfactant and adsolubilization of organics from textile wastewater: A case study. Desalination, 2011, 276, 142-147.	4.0	52
36	Liquor ammonia mediated V( <sup>v</sup> ) insertion in thin Co <sub>3</sub> O <sub>4</sub> sheets for improved pseudocapacitors with high energy density and high specific capacitance value. Chemical Communications, 2015, 51, 15986-15989.	2.2	52

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37	Removal of phenol from aquatic environment by SDS-modified alumina: Batch and fixed bed studies. Separation and Purification Technology, 2006, 50, 256-262.	3.9	49
38	Development and validation of an adsorption kinetic model at solid-liquid interface using normalized Gudermannian function. Journal of Molecular Liquids, 2019, 276, 67-77.	2.3	48
39	New hydrothermal process for hierarchical TiO <sub>2</sub> nanostructures. CrystEngComm, 2009, 11, 1210.	1.3	47
40	Synergism of gold and silver invites enhanced fluorescence for practical applications. RSC Advances, 2016, 6, 17683-17703.	1.7	47
41	Fabrication of a novel Bi <sub>2</sub> O <sub>3</sub> nanoparticle impregnated nitrogen vacant 2D g-C <sub>3</sub> N <sub>4</sub> nanosheet Z scheme photocatalyst for improved degradation of methylene blue dye under LED light illumination. Applied Surface Science, 2020, 507, 144965.	3.1	44
42	Investigation on the adsorption of Mn(II) on surfactant-modified alumina: Batch and column studies. Journal of Environmental Chemical Engineering, 2014, 2, 2295-2305.	3.3	43
43	Statistical modeling and performance evaluation of biosorptive removal of Nile blue A by lignocellulosic agricultural waste under the application of high-strength dye concentrations. Journal of Environmental Chemical Engineering, 2020, 8, 103677.	3.3	41
44	Adsolubilization phenomenon perceived in chitosan beads leading to a fast and enhanced malachite green removal. Chemical Engineering Journal, 2016, 290, 371-380.	6.6	40
45	Synthesis and characterization of SERS gene probe for BRCA-1 (breast cancer). Faraday Discussions, 2006, 132, 293-301.	1.6	39
46	Hierarchical growth of ZnFe <sub>2</sub> O <sub>4</sub> for sensing applications. New Journal of Chemistry, 2016, 40, 1861-1871.	1.4	38
47	Surfactant-modified alumina: An efficient adsorbent for malachite green removal from water environment. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2009, 44, 896-905.	0.9	37
48	Fluorescent Au@Ag <sub>2</sub> /Ag <sub>3</sub> giant cluster for selective sensing of mercury ion. Dalton Transactions, 2014, 43, 11557.	1.6	37
49	Arsenic removal from aqueous solutions by adsorption on laterite soil. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2007, 42, 453-462.	0.9	36
50	Wet-chemical Synthesis Of Spherical Arsenic Nanoparticles By A Simple Reduction Method And Its Characterization. Advanced Materials Letters, 2012, 3, 177-180.	0.3	36
51	Decoration of Fe <sub>3</sub> O <sub>4</sub> Base Material with Pd Loaded CdS Nanoparticle for Superior Photocatalytic Efficiency. Journal of Physical Chemistry C, 2014, 118, 11485-11494.	1.5	36
52	Rapid and high-performance adsorptive removal of hazardous acridine orange from aqueous environment using Abelmoschus esculentus seed powder: Single- and multi-parameter optimization studies. Journal of Environmental Management, 2018, 217, 573-591.	3.8	36
53	Treatment of real wastewater: Kinetic and thermodynamic aspects of cadmium adsorption onto surfactant-modified chitosan beads. International Journal of Biological Macromolecules, 2019, 131, 1092-1100.	3.6	35
54	Enhanced Pb <sup>2+</sup> removal by anionic surfactant bilayer anchored on chitosan bead surface. Journal of Molecular Liquids, 2017, 248, 713-724.	2.3	33

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55	Supported metal and metal oxide particles with proximity effect for catalysis. RSC Advances, 2020, 10, 35449-35472.	1.7	32
56	Nano-Particle-Mediated Wastewater Treatment: a Review. Current Pollution Reports, 2017, 3, 17-30.	3.1	30
57	One-Pot Fabrication of Perforated Graphitic Carbon Nitride Nanosheets Decorated with Copper Oxide by Controlled Ammonia and Sulfur Trioxide Release for Enhanced Catalytic Activity. ACS Omega, 2018, 3, 9318-9332.	1.6	29
58	3D macroporous architecture of self-assembled defect-engineered ultrathin g-C <sub>3</sub> N <sub>4</sub> nanosheets for tetracycline degradation under LED light irradiation. Materials Research Bulletin, 2021, 133, 111074.	2.7	29
59	Solar light-induced photocatalytic degradation of methyl red in an aqueous suspension of commercial ZnO: a green approach. Desalination and Water Treatment, 2015, 53, 501-514.	1.0	28
60	Photo-Fenton process in a Co(II)-adsorbed micellar soft-template on an alumina support for rapid methylene blue degradation. RSC Advances, 2016, 6, 100876-100890.	1.7	28
61	Surfactant modification of chitosan hydrogel beads for Ni@NiO core-shell nanoparticles formation and its catalysis to 4-nitrophenol reduction. Journal of Environmental Chemical Engineering, 2017, 5, 1321-1329.	3.3	28
62	Degradation of textile wastewater by modified photo-Fenton process: Application of Co(II) adsorbed surfactant-modified alumina as heterogeneous catalyst. Journal of Environmental Chemical Engineering, 2017, 5, 2886-2893.	3.3	28
63	Advance Aqueous Asymmetric Supercapacitor Based on Large 2D NiCo <sub>2</sub> O <sub>4</sub> Nanostructures and the rGO@Fe <sub>3</sub> O <sub>4</sub> Composite. ACS Omega, 2017, 2, 6576-6585.	1.6	28
64	Insight into the multiple roles of nitrogen doped carbon quantum dots in an ultrathin 2D-0D-2D all-solid-state Z scheme heterostructure and its performance in tetracycline degradation under LED illumination. Chemical Engineering Journal, 2022, 431, 133914.	6.6	28
65	Redox-Mediated Synthesis of a Fe <sub>3</sub> O <sub>4</sub> @MnO <sub>2</sub> Nanocomposite for Dye Adsorption and Pseudocapacitance. Chemistry - an Asian Journal, 2015, 10, 1571-1580.	1.7	27
66	Proportion of composition in a composite does matter for advanced supercapacitor behavior. Journal of Materials Chemistry A, 2016, 4, 17440-17454.	5.2	26
67	Silver Molybdates with Intriguing Morphology and as a Peroxidase Mimic with High Sulfide Sensing Capacity. Crystal Growth and Design, 2017, 17, 295-307.	1.4	25
68	Dye removal using waste beads: Efficient utilization of surface-modified chitosan beads generated after lead adsorption process. Journal of Water Process Engineering, 2019, 31, 100882.	2.6	25
69	Defect engineered mesoporous 2D graphitic carbon nitride nanosheet photocatalyst for rhodamine B degradation under LED light illumination. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 397, 112582.	2.0	25
70	Sorption kinetics of arsenic on laterite soil in aqueous medium. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2007, 42, 989-996.	0.9	24
71	Cationic surfactant adsorption on silica gel and its application for wastewater treatment. Desalination and Water Treatment, 2010, 22, 1-8.	1.0	24
72	Intriguing Fluorescence Behavior of Diiminic Schiff Bases in the Presence of <i>in situ</i> Produced Noble Metal Nanoparticles. Journal of Physical Chemistry C, 2011, 115, 22138-22147.	1.5	24

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73	Adsorptive removal of Mn(II) from water and wastewater by surfactant-modified alumina. <i>Desalination and Water Treatment</i> , 2016, 57, 2775-2786.	1.0	23
74	Photochemical Synthesis of Biopolymer Coated Au@Agshell Type Bimetallic Nanoparticles. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 2110-2115.	0.9	22
75	Photo-Fenton process in Co(II)-adsorbed amorphous soft-template on alumina support for methyl orange degradation. <i>Catalysis Today</i> , 2020, 348, 212-222.	2.2	22
76	A soft-template mediated approach for Au(0) formation on a heterosilica surface and synergism in the catalytic reduction of 4-nitrophenol. <i>RSC Advances</i> , 2015, 5, 78006-78016.	1.7	19
77	Application of biopolymers as a new age sustainable material for surfactant adsorption: A brief review. <i>Carbohydrate Polymer Technologies and Applications</i> , 2021, 2, 100145.	1.6	18
78	Orange-red silver emitters for sensing application and bio-imaging. <i>Dalton Transactions</i> , 2015, 44, 11457-11469.	1.6	17
79	Fixed-bed column study on removal of Mn(II), Ni(II) and Cu(II) from aqueous solution by surfactant bilayer supported alumina. <i>Separation Science and Technology</i> , 2016, 51, 1287-1298.	1.3	17
80	2D-Bi <sub>4</sub> NbO <sub>8</sub> Cl nanosheet for efficient photocatalytic degradation of tetracycline in synthetic and real wastewater under visible-light: Influencing factors, mechanism and degradation pathway. <i>Journal of Alloys and Compounds</i> , 2022, 900, 163400.	2.8	17
81	Shape-controlled Synthesis of Gold Nanoparticles from Gold(III)-chelates of $\beta$ -diketones. <i>Journal of Nanoparticle Research</i> , 2005, 7, 641-650.	0.8	15
82	Adsorptive removal of Cu(II) and Ni(II) from single-metal, binary-metal, and industrial wastewater systems by surfactant-modified alumina. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2015, 50, 385-395.	0.9	15
83	Preparation of Ultrafine Colloidal Gold Particles using a Bioactive Molecule. <i>Journal of Nanoparticle Research</i> , 2004, 6, 27-34.	0.8	14
84	Behaviour of fixed-bed column for the adsorption of malachite green on surfactant-modified alumina. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2009, 44, 265-272.	0.9	14
85	Novel Arsenic Nanoparticles Are More Effective and Less Toxic than As (III) to Inhibit Extracellular and Intracellular Proliferation of <i>Leishmania donovani</i> . <i>Journal of Parasitology Research</i> , 2014, 2014, 1-10.	0.5	14
86	Methyl red degradation under UV illumination and catalytic action of commercial ZnO: a parametric study. <i>Desalination and Water Treatment</i> , 2015, 56, 1066-1076.	1.0	14
87	Modeling and fixed bed column adsorption of As(V) on laterite soil. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2007, 42, 1585-1593.	0.9	13
88	Surfactant bilayer on chitosan bead surface for enhanced Ni(II) adsorption. <i>Sustainable Materials and Technologies</i> , 2018, 18, e00077.	1.7	12
89	Enhanced adsorption of gentian violet dye from water using lignocellulosic agricultural waste modified with di- and tri-carboxylic acids: Artificial intelligence modeling, practical comprehension, mechanistic and regeneration analyses. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105578.	3.3	12
90	Tin/Indium nanobundle formation from aggregation or growth of nanoparticles. <i>Journal of Nanoparticle Research</i> , 2008, 10, 41-46.	0.8	11

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91	Adsorption of 2,4-D Herbicide from Water Environment on Modified Silica Gel Factory Waste. <i>Water Environment Research</i> , 2013, 85, 2147-2156.	1.3	11
92	Plasmon Induced Near-Infrared Active Photocatalysts: A Review. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	11
93	Arsenate stabilized Cu <sub>2</sub> O nanoparticle catalyst for one-electron transfer reversible reaction. <i>Dalton Transactions</i> , 2014, 43, 6677.	1.6	10
94	Benzophenone assisted UV-activated synthesis of unique Pd-nanodendrite embedded reduced graphene oxide nanocomposite: a catalyst for C-C coupling reaction and fuel cell. <i>RSC Advances</i> , 2019, 9, 21329-21343.	1.7	10
95	Surfactant Adsorption on Solid Surfaces and Further Application to Adsolubilization: A Comprehensive Review. <i>Recent Patents on Engineering</i> , 2013, 7, 167-181.	0.3	10
96	Removal kinetics and mechanism for phenol uptake by surfactant-modified alumina. <i>Desalination and Water Treatment</i> , 2009, 6, 269-275.	1.0	9
97	Application of response surface methodology to evaluate the removal efficiency of Mn(II), Ni(II), and Cu(II) by surfactant-modified alumina. <i>Clean Technologies and Environmental Policy</i> , 2016, 18, 1003-1020.	2.1	9
98	Spectrophotometric determination of cationic surfactants in aqueous media using chrome azurol S as colour forming agent and 1-butanol as extracting solvent. <i>Talanta</i> , 2020, 206, 120238.	2.9	9
99	Utilization of Lignocellulosic Waste for Acridine Orange Uptake: Insights into Multiparameter Isotherms Modeling with ANN-Aimed Formulation. <i>Journal of Environmental Engineering, ASCE</i> , 2020, 146, .	0.7	9
100	Electrochemical aspects of coinage metal nanoparticles for catalysis and spectroscopy. <i>RSC Advances</i> , 2022, 12, 12116-12135.	1.7	9
101	Galvanic replacement of As(0) nanoparticles by Au(III) for nanogold fabrication and SERS application. <i>New Journal of Chemistry</i> , 2014, 38, 1675.	1.4	8
102	Adsorption Based Technologies for Arsenic Removal from Aqueous Environment: A Review. <i>Recent Patents on Engineering</i> , 2010, 4, 92-101.	0.3	7
103	Solid-Phase Extraction of Cu(II) from Aqueous Solution Using Surfactant-Modified Alumina. <i>Journal of Hazardous, Toxic, and Radioactive Waste</i> , 2017, 21, .	1.2	7
104	Degradation of tetracycline antibiotics by advanced oxidation processes: application of MnO <sub>2</sub> nanomaterials. <i>Natural Resources &amp; Engineering</i> , 2017, 2, 32-42.	0.3	6
105	Iron oxide-loaded alginate-bentonite hydrogel beads as a green and sustainable catalyst for 4-nitrophenol reduction. <i>Materials Today Communications</i> , 2021, 28, 102588.	0.9	6
106	Time and temperature dependent formation of hollow gold nanoparticles via galvanic replacement reaction of As(0) and its catalytic application. <i>MRS Communications</i> , 2019, 9, 270-279.	0.8	5
107	Application of silica gel factory waste for methyl orange dye removal. <i>International Journal of Environment and Waste Management</i> , 2014, 13, 37.	0.2	3
108	Batch and Continuous Fixed-Bed Column Adsorption for the Removal of Ni (II) from Aqueous Solutions using Surfactant-Treated Alumina. <i>Recent Patents on Engineering</i> , 2016, 10, 36-50.	0.3	3

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109	Lead Cleanup from Environment using Altered form of Chitosan: A Review. Recent Patents on Engineering, 2018, 12, 175-185.	0.3	3
110	Immobilization of size variable Au nanoparticles on surfactant-modified silica and their catalytic application toward 4-nitrophenol reduction: A comparative account of catalysis. Surfaces and Interfaces, 2021, 26, 101423.	1.5	3
111	Reduction of 4-nitrophenol using copper loaded surfactant-modified chitosan beads: An approach towards sludge management. Materials Today Communications, 2022, 32, 104044.	0.9	2
112	Aggregation of nitroaniline in tetrahydrofuran through intriguing H-bond formation by sodium borohydride. Physical Chemistry Chemical Physics, 2014, 16, 12865.	1.3	1
113	Silver nanoparticle aggregate formation by a photochemical method and its application to SERS analysis. Journal of Raman Spectroscopy, 1999, 30, 199-204.	1.2	1
114	Arsenic Nanoparticles are Effective in Reducing 3-Methylcholanthrene Induced Carcinogenesis in Murine Fibrosarcoma by Promoting Anti-tumorigenic Inflammation. BioNanoScience, 0, , .	1.5	1
115	Bimetallic Nanoparticles: Synthesis and Characterization. , 2017, , 79-96.		0
116	A review on latest advances on nanoparticle mediated processes for hexavalent chromium remediation from water bodies. Recent Patents on Nanotechnology, 2022, 16, .	0.7	0
117	Alteration in Inflammasome Cytokine Profile and Functional Plasticity of Macrophage Phenotype in Arsenic(0) Nanoparticle Treated Murine Fibrosarcoma. BioNanoScience, 0, , 1.	1.5	0