Ashok Kumar Sundramoorthy

List of Publications by Year
in descending order

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Version: 2024-02-01

118 papers	4,753 citations	81743 39 h-index	114278 63 g-index
119 all docs	119 docs citations	119 times ranked	5047 citing authors

#	Article	IF	Citations
1	Recent Advances in Electrochemical Biosensors: Applications, Challenges, and Future Scope. Biosensors, 2021, 11, 336.	2.3	175
2	Electroanalytical determination of acetaminophen using nano-TiO2/polymer coated electrode in the presence of dopamine. Talanta, 2008, 76, 997-1005.	2.9	167
3	Nanostructured Zinc Oxide Particles in Chemically Modified Electrodes for Biosensor Applications. Analytical Letters, 2008, 41, 141-158.	1.0	165
4	Green synthesis of fluorescent carbon quantum dots from Eleusine coracana and their application as a fluorescence â€˜turn-offâ€™ sensor probe for selective detection of Cu2+. Applied Surface Science, 2019, 476, 468-480.	3.1	165
5	Methyl parathion detection in vegetables and fruits using silver@graphene nanoribbons nanocomposite modified screen printed electrode. Scientific Reports, 2017, 7, 46471.	1.6	152
6	Electrochemical selective determination of ascorbic acid at redox active polymer modified electrode derived from direct blue 71. Biosensors and Bioelectronics, 2008, 24, 518-523.	5.3	128
7	Electroanalysis of NADH Using Conducting and Redox Active Polymer/Carbon Nanotubes Modified Electrodes-A Review. Sensors, 2008, 8, 739-766.	2.1	123
8	Applications of graphene in quality assurance and safety of food. TrAC - Trends in Analytical Chemistry, 2014, 60, 36-53.	5.8	104
9	Non-Enzymatic Electrochemical Detection of Urea on Silver Nanoparticles Anchored Nitrogen-Doped Single-Walled Carbon Nanotube Modified Electrode. Journal of the Electrochemical Society, 2018, 165, B3006-B3016.	1.3	103
10	2D-titanium carbide (MXene) based selective electrochemical sensor for simultaneous detection of ascorbic acid, dopamine and uric acid. Journal of Materials Science and Technology, 2021, 72, 122-131.	5.6	103
11	Zinc oxide/redox mediator composite films-based sensor for electrochemical detection of important biomolecules. Analytical Biochemistry, 2008, 380, 174-183.	1.1	98
12	Electrochemically Exfoliated Carbon Quantum Dots Modified Electrodes for Detection of Dopamine Neurotransmitter. Journal of the Electrochemical Society, 2018, 165, G3112-G3119.	1.3	98
13	MnO₂ Nanoflowers Deposited on Graphene Paper as Electrode Materials for Supercapacitors. ACS Applied Nano Materials, 2019, 2, 4386-4394.	2.4	98
14	Poly(4-amino-1-1â€²-azobenzene-3, 4â€²-disulfonic acid) coated electrode for selective detection of dopamine from its interferences. Talanta, 2008, 74, 860-866.	2.9	88
15	Preparation and characterization of copper nanoparticles/zinc oxide composite modified electrode and its application to glucose sensing. Materials Science and Engineering C, 2010, 30, 86-91.	3.8	84
16	Gold Nanoparticles-Thiol-Functionalized Reduced Graphene Oxide Coated Electrochemical Sensor System for Selective Detection of Mercury Ion. Journal of the Electrochemical Society, 2018, 165, B3046-B3053.	1.3	84
17	Synthesis of various dimensional metal organic frameworks (MOFs) and their hybrid composites for emerging applications â€“ A review. Chemosphere, 2022, 298, 134184.	4.2	82
18	Highly selective colorimetric and electrochemical sensing of iron (III) using Nile red functionalized graphene film. Biosensors and Bioelectronics, 2017, 89, 430-436.	5.3	81

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19	In vitro and in vivo characterization of mineralized hydroxyapatite/polycaprolactone-graphene oxide based bioactive multifunctional coating on Ti alloy for bone implant applications. Arabian Journal of Chemistry, 2018, 11, 959-969.	2.3	80
20	Anisotropic noble metal nanoparticles: Synthesis, surface functionalization and applications in biosensing, bioimaging, drug delivery and theranostics. Acta Biomaterialia, 2017, 49, 45-65.	4.1	79
21	Amperometric determination of H2O2 at nano-TiO2/DNA/thionin nanocomposite modified electrode. Colloids and Surfaces B: Biointerfaces, 2008, 66, 266-273.	2.5	73
22	Electrochemical biosensor for methyl parathion based on single-walled carbon nanotube/glutaraldehyde crosslinked acetylcholinesterase-wrapped bovine serum albumin nanocomposites. Analytica Chimica Acta, 2019, 1074, 131-141.	2.6	73
23	Electrochemical Detection of H₂O₂Using an Activated Glassy Carbon Electrode. , 2022, 1, 034401.		73
24	Green synthesis of fluorescent carbon dots from Borassus flabellifer flowers for label-free highly selective and sensitive detection of Fe³⁺ ions. New Journal of Chemistry, 2018, 42, 13297-13307.	1.4	72
25	Electrocatalytic reduction of oxygen and hydrogen peroxide at poly(p-aminobenzene sulfonic) Tj ETQq1 1 0.784314 rgBT /Overlock 1	4.8	68
26	Electroanalysis of ascorbic acid (vitamin C) using nano-ZnO/poly(luminol) hybrid film modified electrode. Reactive and Functional Polymers, 2009, 69, 364-370.	2.0	63
27	Preparation of hexagonal boron nitride doped graphene film modified sensor for selective electrochemical detection of nicotine in tobacco sample. Analytica Chimica Acta, 2020, 1132, 110-120.	2.6	59
28	Electrochemically polymerized composites of conducting poly(p-ABSA) and flavins (FAD, FMN, RF) films and their use as electrochemical sensors: A new potent electroanalysis of NADH and NAD+. Sensors and Actuators B: Chemical, 2007, 123, 964-977.	4.0	57
29	Simultaneous reduction and covalent grafting of polythiophene on graphene oxide sheets for excellent capacitance retention. RSC Advances, 2016, 6, 52945-52949.	1.7	57
30	Facile and green synthesis of highly conducting graphene paper. Carbon, 2018, 138, 108-117.	5.4	54
31	Leftover Kiwi Fruit Peel-Derived Carbon Dots as a Highly Selective Fluorescent Sensor for Detection of Ferric Ion. Chemosensors, 2021, 9, 166.	1.8	54
32	Electrochemical Detection of Uric Acid on Exfoliated Nanosheets of Graphitic-Like Carbon Nitride (g-C₃N₄) Based Sensor. Journal of the Electrochemical Society, 2019, 166, B3163-B3170.	1.3	51
33	Hydrothermal Synthesis of Boron Nitride Quantum Dots/Poly(Luminol) Nanocomposite for Selective Detection of Ascorbic Acid. Journal of the Electrochemical Society, 2019, 166, B3017-B3024.	1.3	50
34	Acid yellow 9 as a dispersing agent for carbon nanotubes: Preparation of redox polymerâ€“carbon nanotube composite film and its sensing application towards ascorbic acid and dopamine. Biosensors and Bioelectronics, 2010, 25, 2592-2597.	5.3	49
35	Nanoceria decorated flower-like molybdenum sulphide nanoflakes: an efficient nanozyme for tumour selective ROS generation and photo thermal therapy. Chemical Communications, 2019, 55, 8017-8020.	2.2	48
36	Synthesis and characterization of MXene (Ti3C2Tx)/Iron oxide composite for ultrasensitive electrochemical detection of hydrogen peroxide. Chemosphere, 2022, 286, 131478.	4.2	47

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37	Recent trends in the applications of thermally expanded graphite for energy storage and sensors â€“ a review. Nanoscale Advances, 2021, 3, 6294-6309.	2.2	46
38	Selective Detection of Uric Acid in the Presence of Ascorbic Acid and Dopamine Using Polymerized Luminol Film Modified Glassy Carbon Electrode. Electroanalysis, 2009, 21, 2281-2286.	1.5	45
39	Nickel oxide decorated MoS₂nanosheet-based non-enzymatic sensor for the selective detection of glucose. RSC Advances, 2020, 10, 643-654.	1.7	45
40	Electrochemical synthesis and characterization of TiO₂nanoparticles and their use as a platform for flavin adenine dinucleotide immobilization and efficient electrocatalysis. Nanotechnology, 2008, 19, 255501.	1.3	41
41	Highly Selective Mercury Detection at Partially Oxidized Graphene/Poly(3,4-Ethylenedioxythiophene):Poly(Styrenesulfonate) Nanocomposite Film-Modified Electrode. Frontiers in Materials, 2014, 1, .	1.2	41
42	Facile synthesis of nitrogen-doped porous carbon materials using waste biomass for energy storage applications. Chemosphere, 2022, 289, 133225.	4.2	40
43	Preparation of 2D Graphene/MXene nanocomposite for the electrochemical determination of hazardous bisphenol A in plastic products. Chemosphere, 2022, 287, 132106.	4.2	39
44	Synthesis and characterization of coral-like hierarchical MgO incorporated fly ash composite for the effective adsorption of azo dye from aqueous solution. Applied Surface Science, 2018, 449, 719-728.	3.1	37
45	UVâ€“vis spectroscopic method for detection and removal of heavy metal ions in water using Ag doped ZnO nanoparticles. Chemosphere, 2022, 303, 135208.	4.2	37
46	Recent Advances on Synthesis and Potential Applications of Carbon Quantum Dots. Frontiers in Materials, 0, 9, .	1.2	37
47	Electrochemical Analysis of H[sub 2]O[sub 2] and Nitrite Using Copper Nanoparticles/Poly(o-phenylenediamine) Film Modified Glassy Carbon Electrode. Journal of the Electrochemical Society, 2009, 156, E118.	1.3	36
48	Scalable and Effective Enrichment of Semiconducting Single-Walled Carbon Nanotubes by a Dual Selective Naphthalene-Based Azo Dispersant. Journal of the American Chemical Society, 2013, 135, 5569-5581.	6.6	36
49	Reduced Graphene Oxide-Poly(3,4-ethylenedioxythiophene) Polystyrenesulfonate Based Dual-Selective Sensor for Iron in Different Oxidation States. ACS Sensors, 2016, 1, 151-157.	4.0	36
50	Fabrication and characterization of Meldola's blue/zinc oxide hybrid electrodes for efficient detection of the reduced form of nicotinamide adenine dinucleotide at low potential. Analytica Chimica Acta, 2007, 592, 36-44.	2.6	33
51	A flower-structured MoS₂-decorated f-MWCNTs/ZnO hybrid nanocomposite-modified sensor for the selective electrochemical detection of vitamin C. New Journal of Chemistry, 2019, 43, 15105-15114.	1.4	33
52	Graphene nanoplatelets-silver nanorods-polymer based in-situ hybrid electrode for electroanalysis of dopamine and ascorbic acid in biological samples. Applied Surface Science, 2018, 449, 558-566.	3.1	32
53	Reviewâ€”Electrochemical Synthesis of 2D Layered Materials and Their Potential Application in Pesticide Detection. Journal of the Electrochemical Society, 2018, 165, B848-B861.	1.3	32
54	Poly(BCB)/Au-nanoparticles hybrid film modified electrode: Preparation, characterization and its application as a non-enzymatic sensor. Thin Solid Films, 2010, 518, 5832-5838.	0.8	31

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55	Lateral assembly of oxidized graphene flakes into large-scale transparent conductive thin films with a three-dimensional surfactant 4-sulfocalix[4]arene. Scientific Reports, 2015, 5, 10716.	1.6	29
56	Synergistic effect of bimetallic Cu:Ni nanoparticles for the efficient catalytic conversion of 4-nitrophenol. New Journal of Chemistry, 2019, 43, 3180-3187.	1.4	29
57	Low-temperature solution process for preparing flexible transparent carbon nanotube film for use in flexible supercapacitors. Nano Research, 2015, 8, 3430-3445.	5.8	28
58	Electrochemical Sensing of Glucose Using Glucose Oxidase/PEDOT:4-Sulfocalix [4]arene/MXene Composite Modified Electrode. Micromachines, 2022, 13, 304.	1.4	28
59	Humic acid/halloysite nanotube/flavin adenine dinucleotide nanocomposite based selective electrochemical biosensor for hydrogen peroxide. Applied Surface Science, 2019, 488, 503-511.	3.1	27
60	Oxidation studies on mono (Cu, Ni) and bimetallic (Cuâ€“Ni) nanoparticles and its impact on catalytic activity. Journal of Alloys and Compounds, 2020, 816, 152608.	2.8	26
61	One-pot electrosynthesis of silver nanorods/graphene nanocomposite using 4-sulphocalix[4]arene for selective detection of oxalic acid. Sensors and Actuators B: Chemical, 2019, 301, 127132.	4.0	25
62	Graphene oxide/oxidized carbon nanofiber/mineralized hydroxyapatite based hybrid composite for biomedical applications. Materials Research Express, 2017, 4, 124005.	0.8	24
63	Preparation of Stable CuO/Boron Nitride Nanocomposite Modified Electrode for Selective Electrochemical Detection of Lâ€“Cysteine. ChemistrySelect, 2020, 5, 9111-9118.	0.7	24
64	Fabrication of 2D-MoSe2 incorporated NiO Nanorods modified electrode for selective detection of glucose in serum samples. Scientific Reports, 2021, 11, 13266.	1.6	24
65	Direct electron transfer of cytochrome C and its electrocatalytic properties on multiwalled carbon nanotubes/ciprofloxacin films. Journal of Solid State Electrochemistry, 2010, 14, 2129-2135.	1.2	22
66	Solution-processed flexible transparent conductors based on carbon nanotubes and silver grid hybrid films. Nanoscale, 2014, 6, 4560-4565.	2.8	22
67	Sustainable Synthesis of Silver Nanoparticles Using Marine Algae for Catalytic Degradation of Methylene Blue. Catalysts, 2021, 11, 1377.	1.6	22
68	Myoglobin/arylhydroxylamine film modified electrode: Direct electrochemistry and electrochemical catalysis. Talanta, 2007, 72, 831-838.	2.9	21
69	Gradient Triple-Layered ZnS/ZnO/Ta₂O₅â€“SiO₂ Coreâ€“Shell Nanoparticles for Enzyme-Based Electrochemical Detection of Cancer Biomarkers. ACS Applied Nano Materials, 2020, 3, 8461-8471.	2.4	21
70	An electrochemically exfoliated graphene/poly(3,4-ethylenedioxythiophene) nanocomposite-based electrochemical sensor for the detection of nicotine. Materials Advances, 0, , .	2.6	21
71	Smartphone-Operated Wireless Chemical Sensors: A Review. Chemosensors, 2022, 10, 55.	1.8	21
72	Gel electrophoresis using a selective radical for the separation of single-walled carbon nanotubes. Faraday Discussions, 2014, 173, 351-363.	1.6	20

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73	Partially Oxidized Graphene/Metallic Singleâ€Walled Carbon Nanotubes Filmâ€Coated Electrode for Nanomolar Detection of Dopamine. Electroanalysis, 2015, 27, 1811-1816.	1.5	18
74	Azo dye functionalized graphene nanoplatelets for selective detection of bisphenol A and hydrogen peroxide. RSC Advances, 2015, 5, 87295-87305.	1.7	18
75	Graphene-Based Nanosensors and Smart Food Packaging Systems for Food Safety and Quality Monitoring. , 2018, , 267-306.		17
76	Electrochemical, microscopic, and EQCM studies of cathodic electrodeposition of ZnO/FAD and anodic polymerization of FAD films modified electrodes and their electrocatalytic properties. Journal of Solid State Electrochemistry, 2007, 11, 993-1006.	1.2	16
77	Adsorption of ciprofloxacin and its role for stabilizing multi-walled carbon nanotubes and characterization. Materials Letters, 2009, 63, 1830-1833.	1.3	16
78	Electrocatalysis and Amperometric Detection of the Reduced Form of Nicotinamide Adenine Dinucleotide at Toluidine Blue/Zinc Oxide Coated Electrodes. Electroanalysis, 2007, 19, 1952-1958.	1.5	15
79	MnO₂nanorods/SiO₂sphere coated on single-wall carbon nanotubes as supercapacitor electrode for high energy storage applications. Materials Research Express, 2017, 4, 124004.	0.8	15
80	Highly selective detection of an organophosphorus pesticide, methyl parathion, using Agâ€“ZnOâ€“SWCNT based field-effect transistors. Journal of Materials Chemistry C, 2020, 8, 8864-8875.	2.7	15
81	Preparation of hybrid paper electrode based on hexagonal boron nitride integrated graphene nanocomposite for free-standing flexible supercapacitors. RSC Advances, 2021, 11, 3445-3451.	1.7	15
82	Biocompatible MXene (Ti3C2Tx) Immobilized with Flavin Adenine Dinucleotide as an Electrochemical Transducer for Hydrogen Peroxide Detection in Ovarian Cancer Cell Lines. Micromachines, 2021, 12, 862.	1.4	15
83	Highly Fluorescent Carbon Dots as a Potential Fluorescence Probe for Selective Sensing of Ferric Ions in Aqueous Solution. Chemosensors, 2021, 9, 301.	1.8	15
84	Amperometric Sensor for Detection of the Reduced Form of Nicotinamide Adenine Dinucleotide Using a Poly(pyronin B) Film Modified Electrode. Electroanalysis, 2009, 21, 1379-1386.	1.5	14
85	Morus nigra-derived hydrophilic carbon dots for the highly selective and sensitive detection of ferric ion in aqueous media and human colon cancer cell imaging. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 635, 128073.	2.3	14
86	A Critical Review on Artificial Intelligence for Fuel Cell Diagnosis. Catalysts, 2022, 12, 743.	1.6	14
87	Electrochemical preparation, characterization, and electrocatalytic studies of Nafionâ€“ruthenium oxide modified glassy carbon electrode. Journal of Solid State Electrochemistry, 2009, 13, 397-406.	1.2	13
88	Sustainable Synthesis of N/S-Doped Porous Carbon from Waste-Biomass as Electroactive Material for Energy Harvesting. Catalysts, 2022, 12, 436.	1.6	13
89	Potential Applications of Halloysite Nanotubes as Drug Carriers: A Review. Journal of Nanomaterials, 2022, 2022, 1-7.	1.5	13
90	Synthesis of highly fluorescent carbon dots fromPlectranthus amboinicusas a fluorescent sensor for Ag⁺ion. Materials Research Express, 2019, 6, 104006.	0.8	12

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91	Electrochemical Preparation of Poly(acriflavine) Film-Modified Electrode and Its Electrolcatalytic Properties Towards NADH, Nitrite and Sulfur Oxoanions. Electroanalysis, 2007, 19, 999-1007.	1.5	11
92	Electrochemical properties of myoglobin deposited on multi-walled carbon nanotube/ciprofloxacin film. Colloids and Surfaces B: Biointerfaces, 2011, 82, 526-531.	2.5	11
93	Polyelectrolyte capsules preloaded with interconnected alginate matrix: An effective capsule system for encapsulation and release of macromolecules. International Journal of Biological Macromolecules, 2018, 107, 2251-2261.	3.6	11
94	Selective Electrochemical Sensing of NADH and NAD+Using Graphene/Tungstate Nanocomposite Modified Electrode. ChemistrySelect, 2020, 5, 14643-14651.	0.7	11
95	Electrochemical Sensing of H[sub 2]O[sub 2] at Flavin Adenine Dinucleotide/Chitosan/CNT Nanocomposite Modified Electrode. Electrochemical and Solid-State Letters, 2010, 13, K83.	2.2	10
96	High-Performance Electrochemical Sensor Based on Yttrium Sulfide Nanoparticles Decorated Carbon Nitride Heterostructure for Highly Sensitive Detection of Antimicrobial Drug in Biological Samples. Journal of the Electrochemical Society, 2021, 168, 077516.	1.3	10
97	Betel leaf derived multicolor emitting carbon dots as a fluorescent probe for imaging mouse normal fibroblast and human thyroid cancer cells. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 136, 115010.	1.3	10
98	Thermally Expanded Graphite Incorporated with PEDOT:PSS Based Anode for Microbial Fuel Cells with High Bioelectricity Production. Journal of the Electrochemical Society, 2022, 169, 017515.	1.3	10
99	Synthesis of poly(8-aminopyrene-1,3,6-trisulfonic acid)/CNT Nanocomposite for Electrochemical Detection of Caffeine. Journal of the Electrochemical Society, 2016, 163, B638-B643.	1.3	9
100	Promising nature-based activated carbon derived from flowers of Borassus flabellifer for supercapacitor applications. Carbon Letters, 2021, 31, 1145-1153.	3.3	9
101	Reviewâ€"Recent Trends on the Synthesis and Different Characterization Tools for MXenes and their Emerging Applications. Journal of the Electrochemical Society, 2022, 169, 077501.	1.3	9
102	Synthetic antibacterial agent assisted synthesis of gold nanoparticles: Characterization and application studies. Journal of Physics and Chemistry of Solids, 2010, 71, 1484-1490.	1.9	8
103	Azo dye-functionalized magnetic Fe3O4/polyacrylic acid nanoadsorbent for removal of lead (II) ions. Environmental Nanotechnology, Monitoring and Management, 2020, 14, 100380.	1.7	8
104	The composition dependent structure and catalytic activity of nanostructured Cuâ€"Ni bimetallic oxides. New Journal of Chemistry, 2020, 44, 9691-9698.	1.4	7
105	Recent Breakthrough of Bismuth-Based Nanostructured Materials for Multimodal Theranostic Applications. Journal of Nanomaterials, 2022, 2022, 1-7.	1.5	7
106	Highly Conductive Polymer PEDOT: PSS - Application in Biomedical and Bioelectrochemical Systems. Radioelektronika, Nanosistemy, Informacionnye Tehnologii, 2020, 12, 471-482.	0.2	5
107	Modification of thermally expanded graphite and its effect on the properties of the amperometric biosensor. 3 Biotech, 2022, 12, 42.	1.1	5
108	Facile synthesis of molybdenum disulfide adorned heteroatom-doped porous carbon for energy storage applications. Journal of Nanostructure in Chemistry, 2023, 13, 545-561.	5.3	5

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109	Identification, Interaction and Detection of Microplastics on Fish Scales (Lutjanus gibbus). Current Analytical Chemistry, 2022, 18, 588-597.	0.6	4
110	Synthesis of Gold Nanorods/Nanobelts and Their Potent Electrocatalytic Properties toward Ethanol Oxidation. Chemistry Letters, 2010, 39, 74-75.	0.7	3
111	Recent Trends in Fabrication and Applications of Wearable Bioelectronics for Early-Stage Disease Monitoring and Diagnosis. , 2021, , 357-381.		3
112	Selective Chemistry-Based Separation of Semiconducting Single-Walled Carbon Nanotubes and Alignment of the Nanotube Array Network under Electric Field for Field-Effect Transistor Applications. ACS Omega, 2021, 6, 5146-5157.	1.6	2
113	Disposable Redox Polymer Coated Screen-Printed Carbon Electrode for NADH Sensing. Micro and Nanosystems, 2012, 4, 172-179.	0.3	1
114	EDITORIAL (Hot Topic: New Developments on Nanomaterials for Electrochemical Applications). Micro and Nanosystems, 2012, 4, 171-171.	0.3	0
115	Biosensors: Moving from Macro- to Micro- and Nanosensors. Nanotechnologies in Russia, 2020, 15, 13-19.	0.7	0
116	Meet Our Section Editor. Current Analytical Chemistry, 2020, 16, 93-94.	0.6	0
117	Open Access Journals: A Boon or Bane for Early Career Researchers in India. Current Analytical Chemistry, 2021, 17, 564-567.	0.6	0
118	Novel Strategy-Based Analytical Systems for the Detection of Chemicals and Biomolecules. Current Analytical Chemistry, 2022, 18, 507-508.	0.6	0