

# Balamurugan Thirumalraj

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2092789/publications.pdf>

Version: 2024-02-01

47  
papers

2,401  
citations

159585

30  
h-index

214800

47  
g-index

49  
all docs

49  
docs citations

49  
times ranked

2692  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hierarchical 3D Architected Ag Nanowires Shelled with NiMn-Layered Double Hydroxide as an Efficient Bifunctional Oxygen Electrocatalyst. <i>ACS Nano</i> , 2020, 14, 1770-1782.	14.6	145
2	Nucleation and Growth Mechanism of Lithium Metal Electroplating. <i>Journal of the American Chemical Society</i> , 2019, 141, 18612-18623.	13.7	144
3	Locally Concentrated LiPF <sub>6</sub> in a Carbonate-Based Electrolyte with Fluoroethylene Carbonate as a Diluent for Anode-Free Lithium Metal Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 9955-9963.	8.0	141
4	Ultrathin Sulfur-Doped Graphitic Carbon Nitride Nanosheets As Metal-Free Catalyst for Electrochemical Sensing and Catalytic Removal of 4-Nitrophenol. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16021-16031.	6.7	137
5	Decoupling the origins of irreversible coulombic efficiency in anode-free lithium metal batteries. <i>Nature Communications</i> , 2021, 12, 1452.	12.8	111
6	Binder-free ultra-thin graphene oxide as an artificial solid electrolyte interphase for anode-free rechargeable lithium metal batteries. <i>Journal of Power Sources</i> , 2020, 450, 227589.	7.8	93
7	Effect of bifunctional additive potassium nitrate on performance of anode free lithium metal battery in carbonate electrolyte. <i>Journal of Power Sources</i> , 2019, 437, 226912.	7.8	86
8	Determination of 4-nitrophenol in water by use of a screen-printed carbon electrode modified with chitosan-crafted ZnO nanoneedles. <i>Journal of Colloid and Interface Science</i> , 2017, 499, 83-92.	9.4	79
9	Palladium nanoparticles decorated on activated fullerene modified screen printed carbon electrode for enhanced electrochemical sensing of dopamine. <i>Journal of Colloid and Interface Science</i> , 2015, 448, 251-256.	9.4	74
10	One-Pot Green Synthesis of Graphene Nanosheets Encapsulated Gold Nanoparticles for Sensitive and Selective Detection of Dopamine. <i>Scientific Reports</i> , 2017, 7, 41213.	3.3	66
11	Facile synthesis of hierarchically nanostructured bismuth vanadate: An efficient photocatalyst for degradation and detection of hexavalent chromium. <i>Journal of Hazardous Materials</i> , 2019, 367, 647-657.	12.4	66
12	Preparation of highly stable fullerene C <sub>60</sub> decorated graphene oxide nanocomposite and its sensitive electrochemical detection of dopamine in rat brain and pharmaceutical samples. <i>Journal of Colloid and Interface Science</i> , 2016, 462, 375-381.	9.4	65
13	Electrochemical co-preparation of cobalt sulfide/reduced graphene oxide composite for electrocatalytic activity and determination of H <sub>2</sub> O <sub>2</sub> in biological samples. <i>Journal of Colloid and Interface Science</i> , 2018, 509, 153-162.	9.4	60
14	Effects of Concentrated Salt and Resting Protocol on Solid Electrolyte Interface Formation for Improved Cycle Stability of Anode-Free Lithium Metal Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 31962-31971.	8.0	58
15	Amperometric detection of nitrite in water samples by use of electrodes consisting of palladium-nanoparticle-functionalized multi-walled carbon nanotubes. <i>Journal of Colloid and Interface Science</i> , 2016, 478, 413-420.	9.4	57
16	Ultrathin 2D graphitic carbon nitride nanosheets decorated with silver nanoparticles for electrochemical sensing of quercetin. <i>Journal of Electroanalytical Chemistry</i> , 2018, 826, 207-216.	3.8	56
17	Rational Design and Interlayer Effect of Dysprosium-Stannate Nanoplatelets Incorporated Graphene Oxide: A Versatile and Competent Electrocatalyst for Toxic Carbamate Pesticide Detection in Vegetables. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 17882-17892.	6.7	53
18	Preparation of $\beta$ -cyclodextrin entrapped graphite composite for sensitive detection of dopamine. <i>Carbohydrate Polymers</i> , 2016, 135, 267-273.	10.2	52

#	ARTICLE	IF	CITATIONS
19	Direct electrochemistry of glucose oxidase and sensing of glucose at a glassy carbon electrode modified with a reduced graphene oxide/fullerene-C60 composite. RSC Advances, 2015, 5, 77651-77657.	3.6	50
20	A Facile Electrochemical Preparation of Reduced Graphene Oxide@Polydopamine Composite: A Novel Electrochemical Sensing Platform for Amperometric Detection of Chlorpromazine. Scientific Reports, 2016, 6, 33599.	3.3	50
21	Ruthenium Nanoparticles Decorated Tungsten Oxide as a Bifunctional Catalyst for Electrocatalytic and Catalytic Applications. ACS Applied Materials & Interfaces, 2017, 9, 31794-31805.	8.0	50
22	Highly sensitive fluorogenic sensing of L-Cysteine in live cells using gelatin-stabilized gold nanoparticles decorated graphene nanosheets. Sensors and Actuators B: Chemical, 2018, 259, 339-346.	7.8	50
23	Mesoporous SnSe <sub>2</sub> -grafted N-doped carbon composites with integrated flaky structure for electrochemical sensing of carbendazim. Ceramics International, 2022, 48, 16023-16032.	4.8	43
24	A simple electrochemical platform for detection of nitrobenzene in water samples using an alumina polished glassy carbon electrode. Journal of Colloid and Interface Science, 2016, 475, 154-160.	9.4	41
25	A simple preparation of graphite/gelatin composite for electrochemical detection of dopamine. Journal of Colloid and Interface Science, 2017, 487, 149-155.	9.4	41
26	Voltammetric determination of catechol and hydroquinone using nitrogen-doped multiwalled carbon nanotubes modified with nickel nanoparticles. Mikrochimica Acta, 2018, 185, 395.	5.0	41
27	Developing high-voltage carbonate-ether mixed electrolyte via anode-free cell configuration. Journal of Power Sources, 2020, 461, 228053.	7.8	37
28	Highly stable biomolecule supported by gold nanoparticles/graphene nanocomposite as a sensing platform for H <sub>2</sub> O <sub>2</sub> biosensor application. Journal of Materials Chemistry B, 2016, 4, 6335-6343.	5.8	36
29	Highly sensitive electrochemical detection of palmitine using a biocompatible multiwalled carbon nanotube/poly- l-lysine composite. Journal of Colloid and Interface Science, 2017, 498, 144-152.	9.4	36
30	Fabrication of Silver Nanoparticles Decorated on Activated Screen Printed Carbon Electrode and Its Application for Ultrasensitive Detection of Dopamine. Electroanalysis, 2015, 27, 1998-2006.	2.9	33
31	Design of novel WO <sub>3</sub> /CB nanohybrids: An affordable and efficient electrochemical sensor for the detection of multifunctional flavonoid rutin. Inorganic Chemistry Frontiers, 2018, 5, 1085-1093.	6.0	31
32	Non-enzymatic amperometric detection of hydrogen peroxide in human blood serum samples using a modified silver nanowire electrode. Journal of Colloid and Interface Science, 2016, 470, 117-122.	9.4	30
33	Fabricating BiOCl/BiVO <sub>4</sub> nanosheets wrapped in a graphene oxide heterojunction composite for detection of an antihistamine in biological samples. Environmental Research, 2022, 212, 113636.	7.5	29
34	An electrochemical facile fabrication of platinum nanoparticle decorated reduced graphene oxide; application for enhanced electrochemical sensing of H <sub>2</sub> O <sub>2</sub> . RSC Advances, 2015, 5, 105567-105573.	3.6	27
35	Alumina Polished Glassy Carbon Electrode as a Simple Electrode for Lower Potential Electrochemical Detection of Dopamine in its Submicromolar Level. Electroanalysis, 2016, 28, 425-430.	2.9	27
36	Novel electrochemical preparation of gold nanoparticles decorated on a reduced graphene oxide/fullerene composite for the highly sensitive electrochemical detection of nitrite. RSC Advances, 2016, 6, 68798-68805.	3.6	26

#	ARTICLE	IF	CITATIONS
37	Electrochemical fabrication of gold nanoparticles decorated on activated fullerene C60: an enhanced sensing platform for trace level detection of toxic hydrazine in water samples. <i>RSC Advances</i> , 2015, 5, 94591-94598.	3.6	25
38	Solid-State Ball-Milling of Co <sub>3</sub> O <sub>4</sub> Nano/Microspheres and Carbon Black Endorsed LaMnO <sub>3</sub> Perovskite Catalyst for Bifunctional Oxygen Electrocatalysis. <i>Catalysts</i> , 2021, 11, 76.	3.5	25
39	Development of electrochemical sensor for the determination of palladium ions (Pd <sup>2+</sup> ) using flexible screen printed un-modified carbon electrode. <i>Journal of Colloid and Interface Science</i> , 2017, 485, 123-128.	9.4	24
40	Impact of gadolinium oxide with functionalized carbon nanosphere: A portable advanced electrocatalyst for pesticide detection in aqueous environmental samples. <i>Talanta</i> , 2022, 238, 123028.	5.5	24
41	Direct electrochemistry of immobilized hemoglobin and sensing of bromate at a glassy carbon electrode modified with graphene and β-cyclodextrin. <i>Mikrochimica Acta</i> , 2016, 183, 1953-1961.	5.0	23
42	Synthesis of a High-Capacity NiO/Ni Foam Anode for Advanced Lithium-Ion Batteries. <i>Advanced Engineering Materials</i> , 2020, 22, 2000351.	3.5	12
43	Garnet-PVDF composite film modified lithium manganese oxide cathode and sulfurized carbon anode from polyacrylonitrile for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14043-14053.	10.3	12
44	Graphene Nanosheet-Wrapped Mesoporous La <sub>0.8</sub> Ce <sub>0.2</sub> Fe <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>3</sub> Perovskite Oxide Composite for Improved Oxygen Reaction Electro-Kinetics and Li-O <sub>2</sub> Battery Application. <i>Nanomaterials</i> , 2021, 11, 1025.	4.1	11
45	Light-Controlled Photochemical Synthesis of Gelatin-Capped Gold Nanoparticles for Spectral Activity and Electro-oxidation of Quercetin. <i>ChemElectroChem</i> , 2017, 4, 2842-2851.	3.4	8
46	One-pot electrochemical preparation of copper species immobilized poly(o-aminophenol)/MWCNT composite with excellent electrocatalytic activity for use as an H <sub>2</sub> O <sub>2</sub> sensor. <i>Inorganic Chemistry Frontiers</i> , 2017, 4, 1356-1364.	6.0	7
47	Revealing Hidden Chemistry of Anode-Free Lithium Metal Battery. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0