

Rapid and on-site simultaneous electrochemical detection of heavy metals in the Amazon river

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Recent advances in portable heavy metal electrochemical sensing platforms. <i>Environmental Science: Water Research and Technology</i> , 2020, 6, 2676-2690.	2.4	99
2	Development of Heavy Metal Potentiostat for Batik Industry. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7804.	2.5	4
3	Carbonaceous Nanomaterials Employed in the Development of Electrochemical Sensors Based on Screen-Printing Technique—A Review. <i>Catalysts</i> , 2020, 10, 680.	3.5	43
4	A sensitive electrochemical sensor for Pb ²⁺ ions based on ZnO nanofibers functionalized by L-cysteine. <i>Journal of Molecular Liquids</i> , 2020, 309, 113041.	4.9	45
5	Online self-powered Cr(VI) monitoring with autochthonous <i>Pseudomonas</i> and a bio-inspired redox polymer. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 6449-6457.	3.7	15
6	Tunable electrochemical of electrosynthesized layer-by-layer multilayer films based on multi-walled carbon nanotubes and metal-organic framework as high-performance electrochemical sensor for simultaneous determination cadmium and lead. <i>Sensors and Actuators B: Chemical</i> , 2021, 326, 128957.	7.8	45
7	Simultaneous detection of trace Pb(II), Cd(II) and Hg(II) by anodic stripping analyses with glassy carbon electrode modified by solid phase synthesized iron-aluminate nano particles. <i>Sensors and Actuators B: Chemical</i> , 2021, 329, 129052.	7.8	32
8	Optimization of innovative composite sensor for Pb(II) detection and capturing from water samples. <i>Microchemical Journal</i> , 2021, 160, 105765.	4.5	109
9	Silica-based nanoenzymes for rapid and ultrasensitive detection of mercury ions. <i>Sensors and Actuators B: Chemical</i> , 2021, 330, 129304.	7.8	21
10	Performance of Heavy Metal Potentiostat for Batik Industry. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 885-894.	0.4	1
11	A Simple Method for Developing a Hand-Drawn Paper-Based Sensor for Mercury; Using Green Synthesized Silver Nanoparticles and Smartphone as a Hand-Held Device for Colorimetric Assay. <i>Global Challenges</i> , 2021, 5, 2000099.	3.6	12
12	Electrochemical Behaviour of Real-Time Sensor for Determination Mercury in Cosmetic Products Based on PANI/MWCNTs/AuNPs/ITO. <i>Cosmetics</i> , 2021, 8, 17.	3.3	11
13	A portable instrument for on-site detection of heavy metal ions in water. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 3471-3477.	3.7	14
14	Voltammetric Determination of Amoxicillin Using a Reduced Graphite Oxide Nanosheet Electrode. <i>Journal of Analytical Methods in Chemistry</i> , 2021, 2021, 1-12.	1.6	15
15	Platinum-Based Interdigitated Micro-Electrode Arrays for Reagent-Free Detection of Copper. <i>Sensors</i> , 2021, 21, 3544.	3.8	20
16	Electrochemical monitoring of marine nutrients: From principle to application. <i>TrAC - Trends in Analytical Chemistry</i> , 2021, 138, 116242.	11.4	12
17	Electrochemical sensors for in-situ measurement of ions in seawater. <i>Sensors and Actuators B: Chemical</i> , 2021, 334, 129635.	7.8	31
18	Portable Au Nanoparticle-Based Colorimetric Sensor Strip for Rapid On-Site Detection of Cd ²⁺ Ions in Potable Water. <i>Biochip Journal</i> , 2021, 15, 276-286.	4.9	17

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19	Microfluidic sensor integrated with nanochannel liquid conjunct Ag/AgCl reference electrode for trace Pb(II) measurement. <i>Analytica Chimica Acta</i> , 2021, 1164, 338511.	5.4	8
20	Critical reviews of electro-reactivity of screen-printed nanocomposite electrode to safeguard the environment from trace metals. <i>Monatshefte für Chemie</i> , 2021, 152, 705-723.	1.8	13
21	A novel electrochemical sensor based on PVP-Co(OH) ₂ nanocomposite for the sensitive detection of Cu(II) ions. <i>Ionics</i> , 2021, 27, 4439-4448.	2.4	2
22	Polyethyleneimine-Functionalized Carbon Nanotube/Graphene Oxide Composite: A Novel Sensing Platform for Pb(II) Acetate in Aqueous Solution. <i>ACS Omega</i> , 2021, 6, 18190-18199.	3.5	9
23	Trends in sensor development toward next-generation point-of-care testing for mercury. <i>Biosensors and Bioelectronics</i> , 2021, 183, 113228.	10.1	45
24	Screen-printed electrodes: Transitioning the laboratory in-to-the field. <i>Talanta Open</i> , 2021, 3, 100032.	3.7	130
25	Contemporary electrochemical sensing and affinity biosensing to assist traces metal ions determination in clinical samples. <i>Electrochemical Science Advances</i> , 2022, 2, e2100144.	2.8	1
26	High concentrations of metals in the waters from Araguari River lower section (Amazon biome): Relationship with land use and cover, ecotoxicological effects and risks to aquatic biota. <i>Chemosphere</i> , 2021, 285, 131451.	8.2	14
27	Electrochemical detection of heavy metal ions in water. <i>Chemical Communications</i> , 2021, 57, 7215-7231.	4.1	160
28	A Microfluidic Aptamer-Based Sensor for Detection of Mercury(II) and Lead(II) Ions in Water. <i>Micromachines</i> , 2021, 12, 1283.	2.9	17
29	Optical and electrochemical microfluidic sensors for water contaminants: A short review. <i>Materials Today: Proceedings</i> , 2022, 48, 1673-1679.	1.8	7
30	Au nanoparticle-hydrogel nanozyme-based colorimetric detection for on-site monitoring of mercury in river water. <i>Mikrochimica Acta</i> , 2021, 188, 382.	5.0	21
31	A Portable Sensor System with Ultramicro Electrode Chip for the Detection of Heavy-Metal Ions in Water. <i>Micromachines</i> , 2021, 12, 1468.	2.9	9
32	Sustainable Copper Electrochemical Stripping onto a Paper-Based Substrate for Clinical Application. <i>ACS Measurement Science Au</i> , 2022, 2, 177-184.	4.4	15
33	A phenanthro[9,10-d]imidazole-based highly selective fluorescence and visual sensor for Cu ²⁺ ion. <i>Optical Materials</i> , 2022, 123, 111834.	3.6	4
34	An innovative autonomous robotic system for on-site detection of heavy metal pollution plumes in surface water. <i>Environmental Monitoring and Assessment</i> , 2022, 194, 122.	2.7	12
35	Assessment of dissolved mercury by diffusive gradients in thin films devices in abandoned ponds impacted by small scale gold mining. <i>Environmental Research</i> , 2022, 208, 112633.	7.5	7
36	Wastewater-based epidemiology in hazard forecasting and early-warning systems for global health risks. <i>Environment International</i> , 2022, 161, 107143.	10.0	8

#	ARTICLE	IF	CITATIONS
37	A Hybrid Screen-Printed Strip for Enhanced Electroanalysis towards Lead and Cadmium in Multi-Matrices. <i>Journal of the Electrochemical Society</i> , 2022, 169, 037516.	2.9	14
38	Recent Advancement in Disposable Electrode Modified with Nanomaterials for Electrochemical Heavy Metal Sensors. <i>Critical Reviews in Analytical Chemistry</i> , 2023, 53, 253-288.	3.5	23
39	A portable screen-printing electrode modified by COFDATA-TP with abundant carboxyl and secondary amine groups for simultaneous detection of Hg ²⁺ , Cu ²⁺ , Pb ²⁺ , and Cd ²⁺ . <i>Ionics</i> , 2022, 28, 4025-4033.	2.4	7
40	A Robust Electrochemical Sensor Based on Butterfly-shaped Silver Nanostructure for Concurrent Quantification of Heavy Metals in Water Samples. <i>Electroanalysis</i> , 2023, 35, .	2.9	11
41	MoS ₂ modified screen printed carbon electrode based flexible sensor for detection of Copper. , 2022, , .		4
42	A Critical Analysis on the Sensitivity Enhancement of Surface Plasmon Resonance Sensors with Graphene. <i>Nanomaterials</i> , 2022, 12, 2562.	4.1	8
43	Sensitive, Selective and Simultaneous Monitor of Multiple Heavy Metals in Environment Using a Low-Cost MIL-53(Fe)/Ag ₂ CrO ₄ Modified GCE Sensor. <i>Journal of the Electrochemical Society</i> , 2022, 169, 097508.	2.9	0
44	Electrochemical fingerprinting combined with machine learning algorithm for closely related medicinal plant identification. <i>Sensors and Actuators B: Chemical</i> , 2023, 375, 132922.	7.8	7
45	Emerging insights into the use of carbon-based nanomaterials for the electrochemical detection of heavy metal ions. <i>Coordination Chemistry Reviews</i> , 2023, 476, 214920.	18.8	72
46	Simultaneous detection of copper and mercury in water samples using in-situ pH control with electrochemical stripping techniques. <i>Electrochimica Acta</i> , 2023, 439, 141668.	5.2	6
47	Co detection of Copper and Lead in Artisanal Sugarcane Spirit Using Caffeic Acid modified Graphite Electrodes. <i>Electroanalysis</i> , 2023, 35, .	2.9	1
48	Competitive fiber optic sensors for the highly selective detection of mercury in water. <i>Applied Optics</i> , 2023, 62, 592.	1.8	1
49	Development in electrochemical technology for environmental wastewater treatment. <i>International Journal of Electrochemical Science</i> , 2022, 17, 2212110.	1.3	4
50	Research on the construction of portable electrochemical sensors for environmental compounds quality monitoring. <i>Materials Today Advances</i> , 2023, 17, 100340.	5.2	33
51	Optimized porous carbon-fibre microelectrode for multiplexed, highly reproducible and repeatable detection of heavy metals in real water samples. <i>Environmental Research</i> , 2023, 220, 115192.	7.5	3
52	PortAqua: a low-cost, compact water quality meter for science communication. <i>Environmental Monitoring and Assessment</i> , 2023, 195, .	2.7	1
53	Microfluidic Device Integrated With PDMS Microchannel and Unmodified ITO Glass Electrodes for Highly Sensitive, Specific, and Point-of-Care Detection of Copper and Mercury. <i>IEEE Transactions on Nanobioscience</i> , 2023, 22, 881-888.	3.3	2
54	Development of soft polymer blend for copper ion detection by electrochemical route. <i>Journal of Applied Polymer Science</i> , 2023, 140, .	2.6	2

#	ARTICLE	IF	CITATIONS
55	Low-Cost, On-Site, Nano-Impact Detection of Silver Nanoparticles via Laser-Ablated Screen-Printed Microelectrodes. <i>Advanced Materials Technologies</i> , 0, , 2201880.	5.8	0
56	Sensor design strategy for environmental and biological monitoring. <i>EcoMat</i> , 2023, 5, .	11.9	9
58	Green synthesis of copper oxide nanoparticles using <i>Ficus elastica</i> extract for the electrochemical simultaneous detection of Cd ²⁺ , Pb ²⁺ , and Hg ²⁺ . <i>RSC Advances</i> , 2023, 13, 18734-18747.	3.6	4
59	Advances in Biosensors for Detection of Foodborne Microorganisms, Toxins, and Chemical Contaminants. , 2024, , 372-384.		2
60	Simultaneous Sensing of Cd(II), Pb(II), and Cu(II) Using Gold Nanoparticle-Modified APTES-Functionalized Indium Tin Oxide Electrode: Effect of APTES Concentration. <i>ACS Omega</i> , 2023, 8, 16587-16599.	3.5	2
61	Three-Dimensional Inkjet-Printed Electrochemical Sensor on Shape Memory Polymer for Aqueous Lead Detection. <i>IEEE Sensors Journal</i> , 2023, 23, 13868-13875.	4.7	1
62	Phosphate ions detection by using an electrochemical sensor based on laser-scribed graphene oxide on paper. <i>Electrochimica Acta</i> , 2023, 461, 142600.	5.2	2
63	Nanomaterials-modified disposable electrodes and portable electrochemical systems for heavy metals detection in wastewater streams: A review. <i>Microchemical Journal</i> , 2023, 193, 109043.	4.5	11
64	Bioremediation of environments contaminated with mercury. Present and perspectives. <i>World Journal of Microbiology and Biotechnology</i> , 2023, 39, .	3.6	1
65	Heavy metal water pollution sensor based on Green Fluorescent Protein. , 2023, , .		0
66	Electroactive poly(thionine) as imprinted polymer and reference probe simultaneously for ratiometric ion imprinted electrochemical Pb ²⁺ sensor. <i>Nanotechnology</i> , 2023, 34, 505709.	2.6	0
67	Recent progress in optical and electrochemical aptasensor technologies for detection of aflatoxin B1. <i>Critical Reviews in Food Science and Nutrition</i> , 0, , 1-19.	10.3	1
68	Emerging Trends in nanostructured materials-coated screen printed electrodes for the electrochemical detection of hazardous heavy metals in environmental matrices.. <i>Chemosphere</i> , 2023, 344, 140231.	8.2	1
69	Ecological risk assessment for metals in sediment and waters from the Brazilian Amazon region. <i>Chemosphere</i> , 2023, 345, 140413.	8.2	1
71	Recent advances in miniaturized electrochemical analyzers for hazardous heavy metal sensing in environmental samples. <i>Coordination Chemistry Reviews</i> , 2024, 499, 215487.	18.8	3
72	A phytic acid (PA)-doped polypyrrole (PPy)/molybdenum disulfide (MoS ₂) nanocomposite-modified electrode for simultaneous electrochemical analysis of Pb ²⁺ and Cd ²⁺ in water. <i>Polymer Bulletin</i> , 0, , .	3.3	0
73	Voltammetry for quantitative determination of trace mercury ions in water via acetylene black modified carbon paste electrode. <i>AEJ - Alexandria Engineering Journal</i> , 2024, 87, 107-113.	6.4	0
74	Facile Fabrication and Analysis of Highly Sensitive PtTFPP/Carbon Black/Polystyrene Oxygen-Sensitive Composite Films for Optical Dissolved-Oxygen Sensor. <i>ACS Applied Electronic Materials</i> , 2024, 6, 1617-1627.	4.3	0

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75	A portable magnetic electrochemical sensor for highly efficient Pb(II) detection based on bimetal composites from Fe-on-Co-MOF. Environmental Research, 2024, 250, 118499.	7.5	0