

# Rahman Hallaj

## List of Publications by Year in descending order

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87  
papers

5,029  
citations

76326

40  
h-index

88630

70  
g-index

88  
all docs

88  
docs citations

88  
times ranked

5603  
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphdiyne nanosheet as a novel sensing platform for self-enhanced electrochemiluminescence of MOF enriched ruthenium (II) in the presence of dual co-reactants for detection of tumor marker. <i>Biosensors and Bioelectronics</i> , 2022, 195, 113657.	10.1	33
2	Magnetically induced catalytic electrooxidation of As(III) on GC modified Fe@Cu-BTC MOF nanoparticles: Application for determination of As(III). <i>Surfaces and Interfaces</i> , 2022, 30, 101946.	3.0	0
3	Unusual synthesis of nanostructured Zn-MOF by bipolar electrochemistry in ionic liquid-based electrolyte: Intrinsic alkaline phosphatase-like activity. <i>Journal of Electroanalytical Chemistry</i> , 2022, 914, 116306.	3.8	8
4	Ultrasensitive fluorescence immunosensor based on mesoporous silica and magnetic nanoparticles: Capture and release strategy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 257, 119749.	3.9	5
5	Surface-Modified Colloid CdTe/CdS Quantum Dots by a Biocompatible Thiazolidine Derivative as Promising Platform for Immobilization of Glucose Oxidase: Application to Fluorescence Sensing of Glucose. <i>Journal of Fluorescence</i> , 2021, 31, 1805-1813.	2.5	0
6	Observation of nanodomains and nanostripes in the Langmuir-Blodgett monolayers of Fe <sub>3</sub> O <sub>4</sub> magnetic nanoparticles. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 273, 115402.	3.5	2
7	A surface-modified silicon carbide nanoparticles based electrochemical sensor for free interferences determination of caffeine in tea and coffee. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 274, 115473.	3.5	7
8	Polymer nanocomposite film for dual colorimetric and fluorescent ascorbic acid detection integrated single-cell bioimaging with droplet microfluidic platform. <i>Dyes and Pigments</i> , 2020, 173, 107875.	3.7	19
9	Indirect determination of mercury(II) by using magnetic nanoparticles, CdS quantum dots and mercury(II)-binding aptamers, and quantitation of released CdS by graphite furnace AAS. <i>Mikrochimica Acta</i> , 2020, 187, 91.	5.0	8
10	A strategy for visual optical determination of glucose based on a smartphone device using fluorescent boron-doped carbon nanoparticles as a light-up probe. <i>Mikrochimica Acta</i> , 2020, 187, 14.	5.0	22
11	Antifungal activity of the lemongrass and clove oil encapsulated in mesoporous silica nanoparticles against wheat's take-all disease. <i>Pesticide Biochemistry and Physiology</i> , 2020, 170, 104696.	3.6	53
12	A self-enhanced ECL-RET immunosensor for the detection of CA19-9 antigen based on Ru(bpy) <sub>2</sub> (phen-NH <sub>2</sub> ) <sub>2</sub> <sup>+</sup> - Amine-rich nitrogen-doped carbon nanodots as probe and graphene oxide grafted hyperbranched aromatic polyamide as platform. <i>Analytica Chimica Acta</i> , 2020, 1132, 55-65.	5.4	33
13	Nonenzymatic and low potential glucose sensor based on electrodeposited Ru-nanofilm from ionic liquid electrolyte. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2020, 261, 114666.	3.5	3
14	CuO nanorods as a laccase mimicking enzyme for highly sensitive colorimetric and electrochemical dual biosensor: Application in living cell epinephrine analysis. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 195, 111228.	5.0	41
15	A Novel Immunosensing Method Based on the Capture and Enzymatic Release of Sandwich-Type Covalently Conjugated Thionine-Gold Nanoparticles as a New Fluorescence Label Used for Ultrasensitive Detection of Hepatitis B Virus Surface Antigen. <i>ACS Omega</i> , 2019, 4, 15323-15336.	3.5	12
16	Synthesis and characterization of novel bithiazolidine derivatives-capped CdTe/CdS quantum dots used as a novel Hg <sup>2+</sup> fluorescence sensor. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 216, 418-423.	3.9	21
17	CuO/WO <sub>3</sub> nanoparticles decorated graphene oxide nanosheets with enhanced peroxidase-like activity for electrochemical cancer cell detection and targeted therapeutics. <i>Materials Science and Engineering C</i> , 2019, 99, 1374-1383.	7.3	53
18	Mimicking peroxidase-like activity of Co <sub>3</sub> O <sub>4</sub> -CeO <sub>2</sub> nanosheets integrated paper-based analytical devices for detection of glucose with smartphone. <i>Sensors and Actuators B: Chemical</i> , 2019, 288, 44-52.	7.8	79

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19	Nickel nanoclusters as a novel emitter for molecularly imprinted electrochemiluminescence based sensor toward nanomolar detection of creatinine. <i>Biosensors and Bioelectronics</i> , 2018, 107, 272-279.	10.1	60
20	Dual Amplified Electrochemical Immunosensor for Hepatitis B Virus Surface Antigen Detection Using Hemin/G-Quadruplex Immobilized onto Fe <sub>3</sub> O <sub>4</sub> @AuNPs or (Hemin-Amino-GO) <sub>2</sub> Nanohybrid. <i>Electroanalysis</i> , 2018, 30, 402-414.	2.9	21
21	Magnetoimmunosensor for simultaneous electrochemical detection of carcinoembryonic antigen and $\alpha$ -fetoprotein using multifunctionalized Au nanotags. <i>Journal of Electroanalytical Chemistry</i> , 2018, 811, 8-15.	3.8	35
22	Ultrasensitive electrochemiluminescence immunoassay for simultaneous determination of CA125 and CA15-3 tumor markers based on PAMAM-sulfanilic acid-Ru(bpy) <sub>3</sub> <sup>2+</sup> and PAMAM-CdTe@CdS nanocomposite. <i>Biosensors and Bioelectronics</i> , 2018, 99, 353-360.	10.1	114
23	Ultrasensitive electrochemiluminescence immunosensor for determination of hepatitis B virus surface antigen using CdTe@CdS-PAMAM dendrimer as luminescent labels and Fe <sub>3</sub> O <sub>4</sub> nanoparticles as magnetic beads. <i>Sensors and Actuators B: Chemical</i> , 2018, 254, 551-560.	7.8	52
24	Switchable electrochemiluminescence aptasensor coupled with resonance energy transfer for selective attomolar detection of Hg <sup>2+</sup> via CdTe@CdS/dendrimer probe and Au nanoparticle quencher. <i>Biosensors and Bioelectronics</i> , 2018, 102, 328-335.	10.1	97
25	Ni-hemin metal-organic framework with highly efficient peroxidase catalytic activity: toward colorimetric cancer cell detection and targeted therapeutics. <i>Journal of Nanobiotechnology</i> , 2018, 16, 93.	9.1	50
26	Direct Enzymatic Glucose/O <sub>2</sub> Biofuel Cell based on Poly-Thiophene Carboxylic Acid alongside Gold Nanostructures Substrates Derived through Bipolar Electrochemistry. <i>Scientific Reports</i> , 2018, 8, 15103.	3.3	15
27	Mimicking peroxidase activity of Co <sub>2</sub> (OH) <sub>2</sub> CO <sub>3</sub> -CeO <sub>2</sub> nanocomposite for smartphone based detection of tumor marker using paper-based microfluidic immunodevice. <i>Talanta</i> , 2018, 189, 100-110.	5.5	66
28	Solid surface fluorescence immunosensor for ultrasensitive detection of hepatitis B virus surface antigen using PAMAM/CdTe@CdS QDs nanoclusters. <i>Methods and Applications in Fluorescence</i> , 2018, 6, 035013.	2.3	9
29	A molecularly imprinted electrochemiluminescence sensor for ultrasensitive HIV-1 gene detection using EuS nanocrystals as luminophore. <i>Biosensors and Bioelectronics</i> , 2018, 117, 332-339.	10.1	124
30	A highly sensitive electrochemical immunosensor for hepatitis B virus surface antigen detection based on Hemin/G-quadruplex horseradish peroxidase-mimicking DNAzyme-signal amplification. <i>Biosensors and Bioelectronics</i> , 2017, 94, 184-192.	10.1	91
31	Immobilization of glucose oxidase onto a novel platform based on modified TiO <sub>2</sub> and graphene oxide, direct electrochemistry, catalytic and photocatalytic activity. <i>Materials Science and Engineering C</i> , 2017, 73, 417-424.	7.3	32
32	Hemin/G-Quadruplex Horseradish Peroxidase-Mimicking DNAzyme: Principle and Biosensing Application. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2017, 170, 85-106.	1.1	18
33	Photoelectrochemical amperometric sensing of cyanide using a glassy carbon electrode modified with graphene oxide and titanium dioxide nanoparticles. <i>Mikrochimica Acta</i> , 2017, 184, 3581-3590.	5.0	20
34	Potential-resolved electrochemiluminescence immunoassay for simultaneous determination of CEA and AFP tumor markers using dendritic nanoclusters and Fe <sub>3</sub> O <sub>4</sub> @SiO <sub>2</sub> nanoparticles. <i>Mikrochimica Acta</i> , 2017, 184, 3613-3623.	5.0	30
35	Influence of nano-ZnO on microbial growth, bioactive content and postharvest quality of strawberries during storage. <i>Innovative Food Science and Emerging Technologies</i> , 2016, 35, 168-176.	5.6	65
36	Highly sensitive and ultra-selective amperometric nitrite sensor using cyclometalated Rh(III)-complex/CNTs modified glassy carbon electrode integrated with flow injection analysis. <i>Sensors and Actuators B: Chemical</i> , 2016, 233, 107-119.	7.8	22

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37	Ultrasensitive electrochemical immunosensor for PSA biomarker detection in prostate cancer cells using gold nanoparticles/PAMAM dendrimer loaded with enzyme linked aptamer as integrated triple signal amplification strategy. <i>Biosensors and Bioelectronics</i> , 2015, 74, 915-923.	10.1	210
38	Manganese oxide nanoflakes/multi-walled carbon nanotubes/chitosan nanocomposite modified glassy carbon electrode as a novel electrochemical sensor for chromium (III) detection. <i>Electrochimica Acta</i> , 2015, 156, 207-215.	5.2	76
39	A highly sensitive prostate-specific antigen immunosensor based on gold nanoparticles/PAMAM dendrimer loaded on MWCNTS/chitosan/ionic liquid nanocomposite. <i>Biosensors and Bioelectronics</i> , 2014, 52, 20-28.	10.1	188
40	Au nanoparticles/PAMAM dendrimer functionalized wired ethyleneamine- $\alpha$ -viologen as highly efficient interface for ultra-sensitive $\alpha$ -fetoprotein electrochemical immunosensor. <i>Biosensors and Bioelectronics</i> , 2014, 59, 389-396.	10.1	108
41	Direct electron transfer and electrocatalytic properties of immobilized hemoglobin onto glassy carbon electrode modified with ionic-liquid/titanium-nitride nanoparticles: Application to nitrite detection. <i>Sensors and Actuators B: Chemical</i> , 2014, 191, 625-633.	7.8	31
42	Adsorption of cadmium(II) ions from aqueous solution on exfoliated graphene nanosheets and its determination by flame atomic absorption spectrometry. <i>Canadian Journal of Chemistry</i> , 2014, 92, 62-67.	1.1	7
43	Highly sensitive electrocatalytic detection of nitrite based on SiC nanoparticles/amine terminated ionic liquid modified glassy carbon electrode integrated with flow injection analysis. <i>Sensors and Actuators B: Chemical</i> , 2014, 205, 136-142.	7.8	44
44	Highly sensitive electrochemical aptasensor for immunoglobulin E detection based on sandwich assay using enzyme-linked aptamer. <i>Analytical Biochemistry</i> , 2014, 466, 89-97.	2.4	44
45	Fabrication of electrochemical theophylline sensor based on manganese oxide nanoparticles/ionic liquid/chitosan nanocomposite modified glassy carbon electrode. <i>Electrochimica Acta</i> , 2013, 108, 707-716.	5.2	77
46	Covalent attachment of thionine onto gold electrode modified with cadmium sulfide nanoparticles: Improvement of electrocatalytic and photoelectrocatalytic reduction of hydrogen peroxide. <i>Electrochimica Acta</i> , 2013, 95, 60-70.	5.2	38
47	Highly sensitive amperometric sensor for micromolar detection of trichloroacetic acid based on multiwalled carbon nanotubes and Fe(II)- $\alpha$ -phthalocyanine modified glassy carbon electrode. <i>Materials Science and Engineering C</i> , 2013, 33, 1720-1726.	7.3	21
48	Controlling of morphology and electrocatalytic properties of cobalt oxide nanostructures prepared by potentiodynamic deposition method. <i>Applied Surface Science</i> , 2013, 276, 512-520.	6.1	28
49	Highly sensitive immunosensing of prostate-specific antigen based on ionic liquid- $\alpha$ -carbon nanotubes modified electrode: Application as cancer biomarker for prostatebiopsies. <i>Biosensors and Bioelectronics</i> , 2013, 42, 439-446.	10.1	131
50	Label-free electrochemical IgE aptasensor based on covalent attachment of aptamer onto multiwalled carbon nanotubes/ionic liquid/chitosan nanocomposite modified electrode. <i>Biosensors and Bioelectronics</i> , 2013, 43, 218-225.	10.1	123
51	Preparation of cobalt nanowires in porous aluminum oxide: Study of the effect of barrier layer. <i>Journal of Materials Research</i> , 2012, 27, 2382-2390.	2.6	14
52	Electrocatalytic oxidation of NADH at electrogenerated NAD <sup>+</sup> oxidation product immobilized onto multiwalled carbon nanotubes/ionic liquid nanocomposite: Application to ethanol biosensing. <i>Talanta</i> , 2012, 90, 91-98.	5.5	59
53	Layer by layer assembly of catalase and amine-terminated ionic liquid onto titanium nitride nanoparticles modified glassy carbon electrode: Study of direct voltammetry and bioelectrocatalytic activity. <i>Analytica Chimica Acta</i> , 2012, 753, 32-41.	5.4	28
54	Cobalt oxide nanostructure-modified glassy carbon electrode as a highly sensitive flow injection amperometric sensor for the picomolar detection of insulin. <i>Journal of Solid State Electrochemistry</i> , 2012, 16, 1239-1246.	2.5	36

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55	Low potential detection of NADH based on Fe <sub>3</sub> O <sub>4</sub> nanoparticles/multiwalled carbon nanotubes composite: Fabrication of integrated dehydrogenase-based lactate biosensor. <i>Biosensors and Bioelectronics</i> , 2012, 33, 60-68.	10.1	133
56	Nanomolar detection of guanine based on a novel cobalt oxide nanostructure-modified glassy carbon electrode. <i>Analytical Methods</i> , 2011, 3, 911.	2.7	9
57	Synthesis of Iridium Oxide Nanotubes by Electrodeposition into Polycarbonate Template: Fabrication of Chromium(III) and Arsenic(III) Electrochemical Sensor. <i>Electroanalysis</i> , 2011, 23, 2429-2437.	2.9	33
58	Deposition of $\text{[Ru(bipyridine)(terpyridine)Cl]}^+$ multilayer film on single wall carbon nanotube modified glassy carbon electrode: Improvement of the electrochemical properties and chemical stability. <i>Thin Solid Films</i> , 2010, 518, 5304-5310.	1.8	16
59	Highly sensitive and selective amperometric sensors for nanomolar detection of iodate and periodate based on glassy carbon electrode modified with iridium oxide nanoparticles. <i>Analytica Chimica Acta</i> , 2010, 661, 28-34.	5.4	21
60	Fabrication of a Highly Sensitive Glucose Biosensor Based on Immobilization of Osmium Complex and Glucose Oxidase onto Carbon Nanotubes Modified Electrode. <i>Electroanalysis</i> , 2009, 21, 909-917.	2.9	25
61	Fabrication of a Sensitive Cholesterol Biosensor Based on Cobalt Oxide Nanostructures Electrodeposited onto Glassy Carbon Electrode. <i>Electroanalysis</i> , 2009, 21, 2693-2700.	2.9	72
62	Electrocatalytic reduction of NAD <sup>+</sup> at glassy carbon electrode modified with single-walled carbon nanotubes and Ru(III) complexes. <i>Journal of Solid State Electrochemistry</i> , 2009, 13, 485-496.	2.5	18
63	Electrodeposition of guanine oxidation product onto zinc oxide nanoparticles: Application to nanomolar detection of L-cysteine. <i>Sensors and Actuators B: Chemical</i> , 2009, 135, 632-641.	7.8	34
64	Immobilization of [Cu(bpy) <sub>2</sub> ]Br <sub>2</sub> complex onto a glassy carbon electrode modified with $\text{[SiMo}_{12}\text{O}_{40}]^+$ and single walled carbon nanotubes: Application to nanomolar detection of hydrogen peroxide and bromate. <i>Analytica Chimica Acta</i> , 2009, 635, 63-70.	5.4	44
65	Electrooxidation of insulin at silicon carbide nanoparticles modified glassy carbon electrode. <i>Electrochemistry Communications</i> , 2009, 11, 1116-1119.	4.7	62
66	Electrochemical properties and electrocatalytic activity of FAD immobilized onto cobalt oxide nanoparticles: Application to nitrite detection. <i>Journal of Electroanalytical Chemistry</i> , 2008, 619-620, 31-38.	3.8	66
67	Electrosorption of Os(III)-complex at single-wall carbon nanotubes immobilized on a glassy carbon electrode: Application to nanomolar detection of bromate, periodate and iodate. <i>Analytica Chimica Acta</i> , 2008, 618, 43-53.	5.4	40
68	Electrochemical detection of trace amount of arsenic(III) at glassy carbon electrode modified with cobalt oxide nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2008, 129, 246-254.	7.8	215
69	Picomolar Detection of Hydrogen Peroxide at Glassy Carbon Electrode Modified with NAD <sup>+</sup> and Single Walled Carbon Nanotubes. <i>Electroanalysis</i> , 2008, 20, 1760-1768.	2.9	21
70	Modification of Glassy Carbon Electrode With Single-Walled Carbon Nanotubes and $\text{[SiMo}_{12}\text{O}_{40}]^+$ : Application to Sb(III) Detection. <i>Electroanalysis</i> , 2008, 20, 2509-2517.	2.9	23
71	Amperometric and voltammetric detection of hydrazine using glassy carbon electrodes modified with carbon nanotubes and catechol derivatives. <i>Talanta</i> , 2007, 75, 147-56.	5.5	121
72	Picomolar Detection of Insulin at Renewable Nickel Powder-Doped Carbon Composite Electrode. <i>Analytical Chemistry</i> , 2007, 79, 7431-7438.	6.5	72

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73	Simultaneous Determination of Ranitidine and Metronidazole at Glassy Carbon Electrode Modified with Single Wall Carbon Nanotubes. <i>Electroanalysis</i> , 2007, 19, 1668-1676.	2.9	71
74	Immobilization of hemoglobin on electrodeposited cobalt-oxide nanoparticles: Direct voltammetry and electrocatalytic activity. <i>Biophysical Chemistry</i> , 2007, 130, 122-131.	2.8	100
75	Nanomolar detection of hydrogen peroxide on glassy carbon electrode modified with electrodeposited cobalt oxide nanoparticles. <i>Analytica Chimica Acta</i> , 2007, 594, 24-31.	5.4	292
76	Modification of glassy carbon electrode with multi-walled carbon nanotubes and iron(III)-porphyrin film: Application to chlorate, bromate and iodate detection. <i>Electrochimica Acta</i> , 2007, 52, 6097-6105.	5.2	97
77	Amperometric detection of ultra trace amounts of Hg(I) at the surface boron doped diamond electrode modified with iridium oxide. <i>Talanta</i> , 2006, 68, 1610-1616.	5.5	19
78	Simultaneous determination of ascorbic acid, uric acid and neurotransmitters with a carbon ceramic electrode prepared by sol-gel technique. <i>Talanta</i> , 2006, 70, 823-832.	5.5	133
79	Micromolar determination of sulfur oxoanions and sulfide at a renewable sol-gel carbon ceramic electrode modified with nickel powder. <i>Electrochimica Acta</i> , 2006, 51, 1952-1959.	5.2	41
80	Electrocatalytic Reduction of Chromium(VI) by Thionin: Electrochemical Properties and Mechanistic Study. <i>Electroanalysis</i> , 2006, 18, 1664-1671.	2.9	19
81	Electrocatalytic properties of [Ru(bpy)(tpy)Cl]PF <sub>6</sub> at carbon ceramic electrode modified with nafion sol-gel composite: application to amperometric detection of l-cysteine. <i>Analytica Chimica Acta</i> , 2005, 534, 335-342.	5.4	38
82	Amperometric Detection of Morphine at Preheated Glassy Carbon Electrode Modified with Multiwall Carbon Nanotubes. <i>Electroanalysis</i> , 2005, 17, 873-879.	2.9	102
83	Synthesis, Spectroscopy and Electrochemistry of Cobalt(III) Schiff Base Complexes. <i>Journal of Chemical Research</i> , 2005, 2005, 190-193.	1.3	19
84	Modification of carbon ceramic electrode prepared with sol-gel technique by a thin film of chlorogenic acid: application to amperometric detection of NADH. <i>Talanta</i> , 2005, 65, 888-894.	5.5	38
85	Catalytic oxidation of thiols at preheated glassy carbon electrode modified with abrasive immobilization of multiwall carbon nanotubes: applications to amperometric detection of thiocytosine, -cysteine and glutathione. <i>Talanta</i> , 2005, 66, 967-975.	5.5	156
86	Glucose biosensor prepared by glucose oxidase encapsulated sol-gel and carbon-nanotube-modified basal plane pyrolytic graphite electrode. <i>Analytical Biochemistry</i> , 2004, 333, 49-56.	2.4	255
87	Adsorption and Reactivity of Chlorogenic Acid at a Hydrophobic Carbon Ceramic Composite Electrode: Application for the Amperometric Detection of Hydrazine. <i>Electroanalysis</i> , 2004, 16, 1964-1971.	2.9	41