

Zhugen Yang

List of Publications by Year in descending order

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74
papers

3,487
citations

117453

34
h-index

143772

57
g-index

75
all docs

75
docs citations

75
times ranked

4185
citing authors

#	ARTICLE	IF	CITATIONS
1	Opportunities and Challenges for Biosensors and Nanoscale Analytical Tools for Pandemics: COVID-19. ACS Nano, 2020, 14, 7783-7807.	7.3	284
2	Paper-based microfluidics for DNA diagnostics of malaria in low resource underserved rural communities. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4834-4842.	3.3	233
3	Measuring biomarkers in wastewater as a new source of epidemiological information: Current state and future perspectives. Environment International, 2017, 99, 131-150.	4.8	209
4	Can a Paper-Based Device Trace COVID-19 Sources with Wastewater-Based Epidemiology?. Environmental Science & Technology, 2020, 54, 3733-3735.	4.6	160
5	Graphene nanocomposites modified electrochemical aptamer sensor for rapid and highly sensitive detection of prostate specific antigen. Biosensors and Bioelectronics, 2018, 121, 41-46.	5.3	139
6	Comprehensive review of the basic chemical behaviours, sources, processes, and endpoints of trace element contamination in paddy soil-rice systems in rice-growing countries. Journal of Hazardous Materials, 2020, 397, 122720.	6.5	127
7	Wastewater-based epidemiology to assess pan-European pesticide exposure. Water Research, 2017, 121, 270-279.	5.3	110
8	Crystallization behavior and melting characteristics of PP nucleated by a novel supported \hat{I}^2 -nucleating agent. Polymer, 2008, 49, 5137-5145.	1.8	107
9	Nanomaterial-based aptamer sensors for arsenic detection. Biosensors and Bioelectronics, 2020, 148, 111785.	5.3	100
10	Estimation of caffeine intake from analysis of caffeine metabolites in wastewater. Science of the Total Environment, 2017, 609, 1582-1588.	3.9	87
11	Enantiomeric profiling of chiral illicit drugs in a pan-European study. Water Research, 2018, 130, 151-160.	5.3	83
12	Efficient removal of Cd(II) from aqueous solution by pinecone biochar: Sorption performance and governing mechanisms. Environmental Pollution, 2020, 265, 115001.	3.7	83
13	Preparation and characteristics of nano-CaCO ₃ supported \hat{I}^2 -nucleating agent of polypropylene. European Polymer Journal, 2008, 44, 1955-1961.	2.6	82
14	Rapid Veterinary Diagnosis of Bovine Reproductive Infectious Diseases from Semen Using Paper-Origami DNA Microfluidics. ACS Sensors, 2018, 3, 403-409.	4.0	75
15	A novel colorimetric biosensor based on non-aggregated Au@Ag core-shell nanoparticles for methamphetamine and cocaine detection. Talanta, 2017, 175, 338-346.	2.9	74
16	Recent advances in biochar engineering for soil contaminated with complex chemical mixtures: Remediation strategies and future perspectives. Science of the Total Environment, 2021, 767, 144351.	3.9	72
17	A novel biosensor based on Au@Ag core-shell nanoparticles for sensitive detection of methylamphetamine with surface enhanced Raman scattering. Talanta, 2018, 190, 263-268.	2.9	66
18	Biosensors for rapid detection of bacterial pathogens in water, food and environment. Environment International, 2022, 166, 107357.	4.8	62

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19	A novel immobilization strategy for electrochemical detection of cancer biomarkers: DNA-directed immobilization of aptamer sensors for sensitive detection of prostate specific antigens. <i>Analyst</i> , The, 2015, 140, 2628-2633.	1.7	59
20	Community Sewage Sensors for Monitoring Public Health. <i>Environmental Science & Technology</i> , 2015, 49, 5845-5846.	4.6	56
21	Low sample volume origami-paper-based graphene-modified aptasensors for label-free electrochemical detection of cancer biomarker-EGFR. <i>Microsystems and Nanoengineering</i> , 2020, 6, 32.	3.4	55
22	Monitoring Genetic Population Biomarkers for Wastewater-Based Epidemiology. <i>Analytical Chemistry</i> , 2017, 89, 9941-9945.	3.2	53
23	Paper-based microfluidics for rapid diagnostics and drug delivery. <i>Journal of Controlled Release</i> , 2020, 322, 187-199.	4.8	53
24	Miniaturized analytical methods for determination of environmental contaminants of emerging concern – A review. <i>Analytica Chimica Acta</i> , 2021, 1158, 238108.	2.6	49
25	An integrated biosensor system with mobile health and wastewater-based epidemiology (iBMW) for COVID-19 pandemic. <i>Biosensors and Bioelectronics</i> , 2020, 169, 112617.	5.3	47
26	Biosensors for wastewater-based epidemiology for monitoring public health. <i>Water Research</i> , 2021, 191, 116787.	5.3	45
27	A Novel DNA Biosensor Using a Ferrocenyl Intercalator Applied to the Potential Detection of Human Population Biomarkers in Wastewater. <i>Environmental Science & Technology</i> , 2015, 49, 5609-5617.	4.6	44
28	Occurrence of various viruses and recent evidence of SARS-CoV-2 in wastewater systems. <i>Journal of Hazardous Materials</i> , 2021, 414, 125439.	6.5	44
29	Rapid duplexed detection of illicit drugs in wastewater using gold nanoparticle conjugated aptamer sensors. <i>Science of the Total Environment</i> , 2019, 688, 771-779.	3.9	43
30	Insights into the mechanisms of arsenic-selenium interactions and the associated toxicity in plants, animals, and humans: A critical review. <i>Critical Reviews in Environmental Science and Technology</i> , 2021, 51, 704-750.	6.6	43
31	Paper microfluidic implementation of loop mediated isothermal amplification for early diagnosis of hepatitis C virus. <i>Nature Communications</i> , 2021, 12, 6994.	5.8	43
32	Improvement of protein immobilization for the elaboration of tumor-associated antigen microarrays: Application to the sensitive and specific detection of tumor markers from breast cancer sera. <i>Biosensors and Bioelectronics</i> , 2013, 40, 385-392.	5.3	41
33	Effects of polyamide 6 on the crystallization and melting behavior of $\hat{1}^2$ -nucleated polypropylene. <i>European Polymer Journal</i> , 2008, 44, 3754-3763.	2.6	39
34	Paper-based microfluidic aptasensors. <i>Biosensors and Bioelectronics</i> , 2020, 170, 112649.	5.3	38
35	Enantiomeric profiling of quinolones and quinolones resistance gene qnrS in European wastewaters. <i>Water Research</i> , 2020, 175, 115653.	5.3	36
36	Community Sewage Sensors towards Evaluation of Drug Use Trends: Detection of Cocaine in Wastewater with DNA-Directed Immobilization Aptamer Sensors. <i>Scientific Reports</i> , 2016, 6, 21024.	1.6	35

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37	Paper-based nanosensors to evaluate community-wide illicit drug use for wastewater-based epidemiology. <i>Water Research</i> , 2021, 189, 116559.	5.3	33
38	Bioaccumulation of Hg in Rice Leaf Facilitates Selenium Bioaccumulation in Rice (<i>Oryza sativa</i>) <i>Trends in Analytical Chemistry</i> , 2021, 143, 116333.	4.6	31
39	Paper-based devices for rapid diagnostics and testing sewage for early warning of COVID-19 outbreak. <i>Case Studies in Chemical and Environmental Engineering</i> , 2020, 2, 100064.	2.9	31
40	Characterization of Three Amino-Functionalized Surfaces and Evaluation of Antibody Immobilization for the Multiplex Detection of Tumor Markers Involved in Colorectal Cancer. <i>Langmuir</i> , 2013, 29, 1498-1509.	1.6	30
41	Subsequent monitoring of ferric ion and ascorbic acid using graphdiyne quantum dots-based optical sensors. <i>Mikrochimica Acta</i> , 2020, 187, 657.	2.5	30
42	Nanomaterial-based aptamer sensors for analysis of illicit drugs and evaluation of drugs consumption for wastewater-based epidemiology. <i>TrAC - Trends in Analytical Chemistry</i> , 2020, 130, 115975.	5.8	30
43	Preparation, crystallization behavior, and melting characteristics of Zn^{2+} -nucleated isotactic polypropylene blends with polyamide 6. <i>Journal of Applied Polymer Science</i> , 2009, 112, 1-8.	1.3	28
44	G-quadruplex-hemin DNAzyme molecular beacon probe for the detection of methamphetamine. <i>RSC Advances</i> , 2016, 6, 62754-62759.	1.7	24
45	The status of potable water reuse implementation. <i>Water Research</i> , 2022, 214, 118198.	5.3	24
46	Crystallization and melting behavior of Zn^{2+} -nucleated isotactic polypropylene/polyamide 6 blends with maleic anhydride grafted polyethylene-vinyl acetate as a compatibilizer. <i>Thermochimica Acta</i> , 2010, 511, 152-158.	1.2	23
47	AuAg nanocages/graphdiyne for rapid elimination and detection of trace pathogenic bacteria. <i>Journal of Colloid and Interface Science</i> , 2022, 613, 376-383.	5.0	23
48	Improved multiple-particle tracking for studying flows in multiphase systems. <i>AIChE Journal</i> , 2007, 53, 1941-1951.	1.8	21
49	Melting characteristic and Zn^{2+} -crystal content of Zn^{2+} -nucleated polypropylene/polyamide 6 alloys prepared using different compounding methods. <i>Polymer International</i> , 2009, 58, 1366-1372.	1.6	21
50	Rolling Circle Amplification as an Efficient Analytical Tool for Rapid Detection of Contaminants in Aqueous Environments. <i>Biosensors</i> , 2021, 11, 352.	2.3	17
51	Reprogrammed tracrRNAs enable repurposing of RNAs as crRNAs and sequence-specific RNA biosensors. <i>Nature Communications</i> , 2022, 13, 1937.	5.8	17
52	High Altitude Platforms for Wireless Sensor Network applications. , 2008, , .		15
53	Cancer biomarkers detection using 3D microstructured protein chip: Implementation of customized multiplex immunoassay. <i>Sensors and Actuators B: Chemical</i> , 2012, 175, 22-28.	4.0	14
54	Droplet microfluidics on analysis of pathogenic microbes for wastewater-based epidemiology. <i>TrAC - Trends in Analytical Chemistry</i> , 2021, 143, 116333.	5.8	14

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55	Nonisothermal crystallization and melting behavior of β -nucleated isotactic polypropylene and polyamide 66 blends. <i>Journal of Applied Polymer Science</i> , 2011, 119, 3566-3573.	1.3	13
56	Customizable fabrication for auxetic graphene assembled macrofilms with high conductivity and flexibility. <i>Carbon</i> , 2020, 162, 545-551.	5.4	12
57	Micro/nano biomedical devices for point-of-care diagnosis of infectious respiratory diseases. <i>Medicine in Novel Technology and Devices</i> , 2022, 14, 100116.	0.9	11
58	Rapid methods for antimicrobial resistance diagnosis in contaminated soils for effective remediation strategy. <i>TrAC - Trends in Analytical Chemistry</i> , 2021, 137, 116203.	5.8	7
59	On the Cost-Effective Wireless Broadband Service Delivery from High Altitude Platforms with an Economical Business Model Design. , 2008, , .		6
60	Business model design for capacity-driven services from High Altitude Platforms. , 2008, , .		5
61	A Study of Multiple Access Schemes for Wireless Sensor Network Applications via High Altitude Systems. , 2009, , .		5
62	Sensor fault detection for industrial gas turbine system by using principal component analysis based y-distance indexes. , 2012, , .		5
63	Applied sensor fault detection and validation using transposed input data PCA and ANNs. , 2012, , .		5
64	Sensor fault detection for industrial systems using a hierarchical clustering-based graphical user interface. , 2012, , .		4
65	Dynamics of nanointerfaces: general discussion. <i>Faraday Discussions</i> , 2018, 210, 451-479.	1.6	4
66	PREPARATION OF CORE-SHELL SILVER/SILICA NANOPARTICLES AND THEIR APPLICATION FOR ENHANCEMENT OF CYANINE 3 FLUORESCENCE. <i>International Journal of Nanoscience</i> , 2012, 11, 1240020.	0.4	2
67	Paper-Based Devices As a New Tool for Rapid and on-Site Monitoring of "Superbugs". <i>Environmental Science & Technology</i> , 2021, 55, 12133-12135.	4.6	2
68	Large-Area and Clean Graphene Transfer on Gold-Nanopyramid-Structured Substrates: Implications for Surface-Enhanced Raman Scattering Detection. <i>ACS Applied Nano Materials</i> , 2022, 5, 3878-3888.	2.4	2
69	The Impact of the Implementation Style on Power Consumption and Security in Embedded Cryptosystems. , 2006, , .		1
70	Processes at nanoelectrodes: general discussion. <i>Faraday Discussions</i> , 2018, 210, 235-265.	1.6	1
71	Risk Assessment of Container Supply Chains Using Methods of Uncertainty Treatment. <i>Safety and Reliability</i> , 2005, 26, 29-38.	1.0	0
72	Wireless broadband services for suburban and rural applications from High Altitude Platforms with an economical business model design. , 2008, , .		0

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73	Cancer Biomarkers Detection using Microstructured Protein Chip: Implementation of Customized Multiplex Immunoassay. <i>Procedia Engineering</i> , 2011, 25, 952-955.	1.2	0
74	Energy conversion at nanointerfaces: general discussion. <i>Faraday Discussions</i> , 2018, 210, 333-351.	1.6	0