

# John Kwame Bediako

## List of Publications by Year in descending order

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105  
papers

6,537  
citations

76326

40  
h-index

66911

78  
g-index

105  
all docs

105  
docs citations

105  
times ranked

6138  
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of quaternized polyethylenimine-cellulose fibers for fast recovery of Au(CN) <sub>2</sub> <sup>-</sup> in alkaline wastewater: Kinetics, isotherm, and thermodynamic study. <i>Journal of Hazardous Materials</i> , 2022, 422, 126940.	12.4	15
2	Organic acid-based linear free energy relationship models for green leaching of strategic metals from spent lithium-ion batteries and improvement of leaching performance. <i>Journal of Hazardous Materials</i> , 2022, 423, 127214.	12.4	19
3	Simple, green organic acid-based hydrometallurgy for waste-to-energy storage devices: Recovery of NiMnCo <sub>2</sub> O <sub>4</sub> as an electrode material for pseudocapacitor from spent LiNiMnCoO <sub>2</sub> batteries. <i>Journal of Hazardous Materials</i> , 2022, 424, 127481.	12.4	24
4	Adsorption modeling of microcrystalline cellulose for pharmaceutical-based micropollutants. <i>Journal of Hazardous Materials</i> , 2022, 426, 128087.	12.4	17
5	Facile Processing of Polyelectrolyte Complexes for Immobilization of Heavy Metal Ions in Wastewater. <i>ACS Applied Polymer Materials</i> , 2022, 4, 2346-2354.	4.4	13
6	In silico prediction and analysis of dielectric constant of ionic liquids. <i>Korean Journal of Chemical Engineering</i> , 2022, 39, 1651-1657.	2.7	1
7	Strategies for recovery of copper and gold as single constituents or an alloy: Selective separation and adsorption-coupled incineration of the bulk metal-loaded adsorbents. <i>Resources, Conservation and Recycling</i> , 2022, 181, 106264.	10.8	6
8	Self-coagulating polyelectrolyte complexes for target-tunable adsorption and separation of metal ions. <i>Journal of Hazardous Materials</i> , 2021, 401, 123352.	12.4	28
9	Prediction of organic pollutant removal using <i>Corynebacterium glutamicum</i> fermentation waste. <i>Environmental Research</i> , 2021, 192, 110271.	7.5	9
10	In-situ microwave-assisted leaching and selective separation of Au(III) from waste printed circuit boards in biphasic aqua regia-ionic liquid systems. <i>Separation and Purification Technology</i> , 2021, 255, 117649.	7.9	17
11	Selection of low-toxic and highly efficient ionic liquids for the separation of palladium and platinum in acidic solution, and prediction of the metal affinity of ionic liquids. <i>Separation and Purification Technology</i> , 2021, 258, 118019.	7.9	7
12	Development of melamine-impregnated alginate capsule for selective recovery of Pd(II) from a binary metal solution. <i>Journal of Cleaner Production</i> , 2021, 288, 125648.	9.3	12
13	Pd(II)-Imprinted Chitosan Adsorbent for Selective Adsorption of Pd(II): Optimizing the Imprinting Process through Box-Behnken Experimental Design. <i>ACS Omega</i> , 2021, 6, 13057-13065.	3.5	14
14	Predicting adsorption of micropollutants on non-functionalized and functionalized multi-walled carbon nanotubes: Experimental study and LFER modeling. <i>Journal of Hazardous Materials</i> , 2021, 411, 125124.	12.4	15
15	Polyethylenimine impregnated alginate capsule as a high capacity sorbent for the recovery of monovalent and trivalent gold. <i>Scientific Reports</i> , 2021, 11, 17836.	3.3	22
16	Development of polyethylenimine-starch fibers stable over the broad pH range for selective adsorption of gold from actual leachate solutions of waste electrical and electronic equipment. <i>Journal of Cleaner Production</i> , 2021, 328, 129545.	9.3	12
17	Benignly-fabricated crosslinked polyethylenimine/calcium-alginate fibers as high-performance adsorbents for effective recovery of gold. <i>Journal of Cleaner Production</i> , 2020, 252, 119389.	9.3	70
18	Evaluation of orange peel-derived activated carbons for treatment of dye-contaminated wastewater tailings. <i>Environmental Science and Pollution Research</i> , 2020, 27, 1053-1068.	5.3	46

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19	Ion-imprinted chitosan fiber for recovery of Pd(II): Obtaining high selectivity through selective adsorption and two-step desorption. <i>Environmental Research</i> , 2020, 182, 108995.	7.5	40
20	Highly efficient and acid-resistant metal-organic frameworks of MIL-101(Cr)-NH <sub>2</sub> for Pd(II) and Pt(IV) recovery from acidic solutions: Adsorption experiments, spectroscopic analyses, and theoretical computations. <i>Journal of Hazardous Materials</i> , 2020, 387, 121689.	12.4	62
21	Sequential recovery of gold and copper from bioleached wastewater using ion exchange resins. <i>Environmental Pollution</i> , 2020, 266, 115167.	7.5	61
22	Recovery of gold via adsorption-incineration techniques using banana peel and its derivatives: Selectivity and mechanisms. <i>Waste Management</i> , 2020, 113, 225-235.	7.4	30
23	Simultaneous scavenging of persistent pharmaceuticals with different charges by activated carbon fiber from aqueous environments. <i>Chemosphere</i> , 2020, 247, 125909.	8.2	14
24	Adsorptive removal of cationic tricyclic antidepressants using cation-exchange resin. <i>Environmental Science and Pollution Research</i> , 2020, 27, 24760-24771.	5.3	6
25	Structure-controlled recovery of palladium(II) from acidic aqueous solution using metal-organic frameworks of MOF-802, UiO-66 and MOF-808. <i>Chemical Engineering Journal</i> , 2019, 362, 280-286.	12.7	93
26	Superstable, Highly Efficient, and Recyclable Fibrous Metal-Organic Framework Membranes for Precious Metal Recovery from Strong Acidic Solutions. <i>Small</i> , 2019, 15, e1805242.	10.0	54
27	Functionalized magnetic biopolymeric graphene oxide with outstanding performance in water purification. <i>NPG Asia Materials</i> , 2019, 11, .	7.9	45
28	High-performance and acid-tolerant polyethylenimine-aminated polyvinyl chloride fibers: fabrication and application for recovery of platinum from acidic wastewaters. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 102839.	6.7	25
29	Thiourea-Immobilized Polymer Beads for Sorption of Cr(VI) Ions in Acidic Aqueous Media. <i>Macromolecular Research</i> , 2019, 27, 515-521.	2.4	4
30	Effective Recovery of Pt(IV) from Acidic Solution by a Defective Metal-Organic Frameworks Using Central Composite Design for Synthesis. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7510-7518.	6.7	22
31	Metal-Organic Framework Fibrous Membranes: Superstable, Highly Efficient, and Recyclable Fibrous Metal-Organic Framework Membranes for Precious Metal Recovery from Strong Acidic Solutions (Small 10/2019). <i>Small</i> , 2019, 15, 1970055.	10.0	1
32	Characterization of the residual biochemical components of sequentially extracted banana peel biomasses and their environmental remediation applications. <i>Waste Management</i> , 2019, 89, 141-153.	7.4	29
33	QSAR modelling for predicting adsorption of neutral, cationic, and anionic pharmaceuticals and other neutral compounds to microalgae <i>Chlorella vulgaris</i> in aquatic environment. <i>Water Research</i> , 2019, 151, 288-295.	11.3	22
34	Prediction of adsorption properties for ionic and neutral pharmaceuticals and pharmaceutical intermediates on activated charcoal from aqueous solution via LFER model. <i>Chemical Engineering Journal</i> , 2019, 362, 199-206.	12.7	42
35	Estimating environmental fate of tricyclic antidepressants in wastewater treatment plant. <i>Science of the Total Environment</i> , 2018, 634, 52-58.	8.0	24
36	Selective adsorption of Pd(II) over interfering metal ions (Co(II), Ni(II), Pt(IV)) from acidic aqueous phase by metal-organic frameworks. <i>Chemical Engineering Journal</i> , 2018, 345, 337-344.	12.7	76

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37	Facile fabrication of polyacrylic acid-polyvinyl chloride composite adsorbents for the treatment of cadmium-contaminated wastewater. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 2401-2408.	6.7	20
38	Development of waste biomass based sorbent for removal of cyanotoxin microcystin-LR from aqueous phases. <i>Bioresource Technology</i> , 2018, 247, 690-696.	9.6	27
39	Polyethylenimine-coated biomass-chitosan composite fibers for recovery of ruthenium from industrial effluents: Effects of chitosan molecular weight and drying method. <i>Hydrometallurgy</i> , 2018, 182, 114-120.	4.3	11
40	Preparation and Characterization of Rubber Blends for Industrial Tire Tread Fabrication. <i>International Journal of Polymer Science</i> , 2018, 2018, 1-12.	2.7	20
41	Experimental and QSAR studies on adsorptive interaction of anionic nonsteroidal anti-inflammatory drugs with activated charcoal. <i>Chemosphere</i> , 2018, 212, 620-628.	8.2	11
42	Potentiometric titration data on the enhancement of sorption capacity of surface-modified biosorbents: functional groups scanning method. <i>Clean Technologies and Environmental Policy</i> , 2018, 20, 2191-2199.	4.1	7
43	Highly Effective Removal of Nonsteroidal Anti-inflammatory Pharmaceuticals from Water by Zr(IV)-Based Metal-Organic Framework: Adsorption Performance and Mechanisms. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 28076-28085.	8.0	171
44	Adsorptive interaction of cationic pharmaceuticals on activated charcoal: Experimental determination and QSAR modelling. <i>Journal of Hazardous Materials</i> , 2018, 360, 529-535.	12.4	26
45	Fabrication of Stable and Regenerable Amine Functionalized Magnetic Nanoparticles as a Potential Material for Pt(IV) Recovery from Acidic Solutions. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 18650-18659.	8.0	25
46	Quantitative analysis of adsorptive interactions of ionic and neutral pharmaceuticals and other chemicals with the surface of <i>Escherichia coli</i> cells in aquatic environment. <i>Environmental Pollution</i> , 2017, 227, 8-14.	7.5	15
47	Effective adsorption of Pd(II), Pt(IV) and Au(III) by Zr(IV)-based metal-organic frameworks from strongly acidic solutions. <i>Journal of Materials Chemistry A</i> , 2017, 5, 13557-13564.	10.3	179
48	Preparation, characterization and lead adsorption study of tripolyphosphate-modified waste Lyocell fibers. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 412-421.	6.7	18
49	Valorisation of post-sorption materials: Opportunities, strategies, and challenges. <i>Advances in Colloid and Interface Science</i> , 2017, 242, 35-58.	14.7	85
50	Development of polyethyleneimine-loaded core-shell chitosan hollow beads and their application for platinum recovery in sequential metal scavenging fill-and-draw process. <i>Journal of Hazardous Materials</i> , 2017, 324, 724-731.	12.4	49
51	The Preparation of Modified Industrial Waste Polyacrylonitrile for the Adsorptive Recovery of Pt(IV) from Acidic Solutions. <i>Materials</i> , 2016, 9, 988.	2.9	11
52	Poly(styrenesulfonic acid)-impregnated alginate capsule for the selective sorption of Pd(II) from a Pt(IV)-Pd(II) binary solution. <i>Journal of Hazardous Materials</i> , 2016, 318, 79-89.	12.4	38
53	Low-cost renewable adsorbent developed from waste textile fabric and its application to heavy metal adsorption. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016, 63, 250-258.	5.3	35
54	Reusable polyethyleneimine-coated polysulfone/bacterial biomass composite fiber biosorbent for recovery of Pd(II) from acidic solutions. <i>Chemical Engineering Journal</i> , 2016, 302, 545-551.	12.7	45

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55	Removal of Cd(II) by poly(styrenesulfonic acid)-impregnated alginate capsule. Journal of the Taiwan Institute of Chemical Engineers, 2016, 61, 188-195.	5.3	16
56	Importance of the coating pH in fabrication of polyethylenimine-coated polysulfone- Escherichia coli composite fiber sorbent. Journal of the Taiwan Institute of Chemical Engineers, 2016, 66, 379-385.	5.3	12
57	Conversion of waste textile cellulose fibers into heavy metal adsorbents. Journal of Industrial and Engineering Chemistry, 2016, 43, 61-68.	5.8	39
58	Comprehensive approach for predicting toxicological effects of ionic liquids on several biological systems using unified descriptors. Scientific Reports, 2016, 6, 33403.	3.3	35
59	Interpretation of toxicological activity of ionic liquids to acetylcholinesterase inhibition via in silico modelling. Chemosphere, 2016, 159, 178-183.	8.2	21
60	Selective recovery of Au(III), Pt(IV), and Pd(II) from aqueous solutions by liquid-liquid extraction using ionic liquid Aliquat-336. Journal of Molecular Liquids, 2016, 216, 18-24.	4.9	121
61	Adsorptive separation of Pb(II) and Cu(II) from aqueous solutions using as-prepared carboxymethylated waste Lyocell fiber. International Journal of Environmental Science and Technology, 2016, 13, 875-886.	3.5	20
62	Valorization of <i>Escherichia coli</i> waste biomass as a biosorbent for removing reactive dyes from aqueous solutions. Desalination and Water Treatment, 2016, 57, 20084-20090.	1.0	15
63	Spinel ferrite magnetic adsorbents: Alternative future materials for water purification?. Coordination Chemistry Reviews, 2016, 315, 90-111.	18.8	575
64	Aliquat-336-impregnated alginate capsule as a green sorbent for selective recovery of gold from metal mixtures. Chemical Engineering Journal, 2016, 289, 413-422.	12.7	91
65	Modelling for antimicrobial activities of ionic liquids towards Escherichia coli, Staphylococcus aureus and Candida albicans using linear free energy relationship descriptors. Journal of Hazardous Materials, 2016, 311, 168-175.	12.4	37
66	Removal of hydrolyzed Reactive Black 5 from aqueous solution using a polyethylenimine-polyvinyl chloride composite fiber. Chemical Engineering Journal, 2015, 280, 18-25.	12.7	55
67	Carboxymethyl cellulose fiber as a fast binding and biodegradable adsorbent of heavy metals. Journal of the Taiwan Institute of Chemical Engineers, 2015, 57, 104-110.	5.3	76
68	A sustainable cationic chitosan/E. coli fiber biosorbent for Pt(IV) removal and recovery in batch and column systems. Separation and Purification Technology, 2015, 143, 32-39.	7.9	45
69	Removal of heavy metals from aqueous phases using chemically modified waste Lyocell fiber. Journal of Hazardous Materials, 2015, 299, 550-561.	12.4	85
70	Selective recovery of Pd(II) from extremely acidic solution using ion-imprinted chitosan fiber: Adsorption performance and mechanisms. Journal of Hazardous Materials, 2015, 299, 10-17.	12.4	121
71	In silico prediction of linear free energy relationship descriptors of neutral and ionic compounds. RSC Advances, 2015, 5, 80634-80642.	3.6	25
72	Selective biosorption behavior of Escherichia coli biomass toward Pd(II) in Pt(IV)-Pd(II) binary solution. Journal of Hazardous Materials, 2015, 283, 657-662.	12.4	74

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73	Biosorbents for recovery of precious metals. <i>Bioresource Technology</i> , 2014, 160, 203-212.	9.6	197
74	Ruthenium recovery from acetic acid waste water through sorption with bacterial biosorbent fibers. <i>Bioresource Technology</i> , 2013, 128, 30-35.	9.6	58
75	Recovery of high-purity metallic Pd from Pd(II)-sorbed biosorbents by incineration. <i>Bioresource Technology</i> , 2013, 137, 400-403.	9.6	15
76	Binding sites and mechanisms of cadmium to the dried sewage sludge biomass. <i>Chemosphere</i> , 2013, 93, 146-151.	8.2	14
77	Removal of 1-ethyl-3-methylimidazolium cations with bacterial biosorbents from aqueous media. <i>Journal of Hazardous Materials</i> , 2013, 244-245, 130-134.	12.4	18
78	Cationic polymer-immobilized polysulfone-based fibers as high performance sorbents for Pt(IV) recovery from acidic solutions. <i>Journal of Hazardous Materials</i> , 2013, 263, 391-397.	12.4	45
79	Glutaraldehyde-crosslinked chitosan beads for sorptive separation of Au(III) and Pd(II): Opening a way to design reduction-coupled selectivity-tunable sorbents for separation of precious metals. <i>Journal of Hazardous Materials</i> , 2013, 248-249, 211-218.	12.4	80
80	Development of Poly(acrylic acid)-Modified Bacterial Biomass As a High-Performance Biosorbent for Removal of Cd(II) from Aqueous Solution. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 6446-6452.	3.7	20
81	Recovery of metallic palladium from hydrochloric acid solutions by a combined method of adsorption and incineration. <i>Chemical Engineering Journal</i> , 2013, 218, 303-308.	12.7	22
82	Recovery of gold as a type of porous fiber by using biosorption followed by incineration. <i>Bioresource Technology</i> , 2012, 104, 208-214.	9.6	50
83	Utilization of PEI-modified <i>Corynebacterium glutamicum</i> biomass for the recovery of Pd(II) in hydrochloric solution. <i>Bioresource Technology</i> , 2011, 102, 3888-3893.	9.6	104
84	Sorptive removal and recovery of nickel(II) from an actual effluent of electroplating industry: Comparison between <i>Escherichia coli</i> biosorbent and Amberlite ion exchange resin. <i>Korean Journal of Chemical Engineering</i> , 2011, 28, 927-932.	2.7	16
85	Preparation of PEI-coated bacterial biosorbent in water solution: Optimization of manufacturing conditions using response surface methodology. <i>Bioresource Technology</i> , 2011, 102, 1462-1467.	9.6	23
86	Platinum recovery from ICP wastewater by a combined method of biosorption and incineration. <i>Bioresource Technology</i> , 2010, 101, 1135-1140.	9.6	88
87	Immobilized citric acid-treated bacterial biosorbents for the removal of cationic pollutants. <i>Chemical Engineering Journal</i> , 2010, 162, 662-668.	12.7	27
88	Recovery of zero-valent gold from cyanide solution by a combined method of biosorption and incineration. <i>Bioresource Technology</i> , 2010, 101, 8587-8592.	9.6	26
89	Surface modified bacterial biosorbent with poly(allylamine hydrochloride): Development using response surface methodology and use for recovery of hexachloroplatinate(IV) from aqueous solution. <i>Water Research</i> , 2010, 44, 5919-5928.	11.3	39
90	Evaluation of fermentation waste ( <i>Corynebacterium glutamicum</i> ) as a biosorbent for the treatment of nickel(II)-bearing solutions. <i>Biochemical Engineering Journal</i> , 2008, 41, 228-233.	3.6	25

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91	Removal of Basic Blue 3 from aqueous solution by <i>Corynebacterium glutamicum</i> biomass: Biosorption and precipitation mechanisms. <i>Korean Journal of Chemical Engineering</i> , 2008, 25, 1060-1064.	2.7	17
92	Polysulfone-immobilized <i>Corynebacterium glutamicum</i> : A biosorbent for Reactive black 5 from aqueous solution in an up-flow packed column. <i>Chemical Engineering Journal</i> , 2008, 145, 44-49.	12.7	51
93	Biosorption of methylene blue from aqueous solution using free and polysulfone-immobilized <i>Corynebacterium glutamicum</i> : Batch and column studies. <i>Bioresource Technology</i> , 2008, 99, 2864-2871.	9.6	107
94	A new approach to study the decolorization of complex reactive dye bath effluent by biosorption technique. <i>Bioresource Technology</i> , 2008, 99, 5778-5785.	9.6	54
95	Bacterial biosorbents and biosorption. <i>Biotechnology Advances</i> , 2008, 26, 266-291.	11.7	1,466
96	Different binding mechanisms in biosorption of reactive dyes according to their reactivity. <i>Water Research</i> , 2008, 42, 4847-4855.	11.3	44
97	Chemical Modification and Immobilization of <i>Corynebacterium glutamicum</i> for Biosorption of Reactive Black 5 from Aqueous Solution. <i>Industrial &amp; Engineering Chemistry Research</i> , 2007, 46, 608-617.	3.7	71
98	Mechanistic understanding and performance enhancement of biosorption of reactive dyestuffs by the waste biomass generated from amino acid fermentation process. <i>Biochemical Engineering Journal</i> , 2007, 36, 2-7.	3.6	69
99	Biosorption of cadmium by various types of dried sludge: An equilibrium study and investigation of mechanisms. <i>Journal of Hazardous Materials</i> , 2006, 138, 378-383.	12.4	105
100	Interaction between protonated waste biomass of <i>Corynebacterium glutamicum</i> and anionic dye Reactive Red 4. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2005, 262, 175-180.	4.7	80
101	Biosorption of Trivalent Chromium on the Brown Seaweed Biomass. <i>Environmental Science &amp; Technology</i> , 2001, 35, 4353-4358.	10.0	332
102	Sorptive Removal of Cadmium Ions from Solution Phases Using Textile Fiber Waste Coated with Carboxymethyl Cellulose. <i>Advanced Materials Research</i> , 0, 1130, 631-634.	0.3	11
103	Selective Recovery of Au(III) from Binary Metal Solution Using Aliquat-336-Impregnated Alginate Capsule. <i>Advanced Materials Research</i> , 0, 1130, 511-514.	0.3	5
104	Fabrication and Application of Polyethylenimine/Ca-Alginate Blended Hydrogel Fibers as High-Capacity Adsorbents for Recovery of Gold from Acidic Solutions. <i>Solid State Phenomena</i> , 0, 262, 103-106.	0.3	4
105	Fabrication of Magnetic Polymer Composite Sorbents and its Application for Recovery of Platinum from Acidic Solution. <i>Solid State Phenomena</i> , 0, 262, 311-314.	0.3	1