

Adrián Bonilla-Petriciolet

List of Publications by Year in descending order

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224
papers

8,253
citations

43973

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76
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241
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docs citations

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times ranked

5774
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Adsorption of congo red and methylene blue dyes on an ashitaba waste and a walnut shell-based activated carbon from aqueous solutions: Experiments, characterization and physical interpretations. <i>Chemical Engineering Journal</i> , 2020, 388, 124263. | 6.6 | 319 |
| 2 | Competitive adsorption of dyes and heavy metals on zeolitic structures. <i>Journal of Environmental Management</i> , 2013, 116, 213-221. | 3.8 | 202 |
| 3 | An algebraic method that includes Gibbs minimization for performing phase equilibrium calculations for any number of components or phases. <i>Fluid Phase Equilibria</i> , 2003, 210, 229-245. | 1.4 | 191 |
| 4 | Adsorption of methylene blue from aqueous solution on activated carbons and composite prepared from an agricultural waste biomass: A comparative study by experimental and advanced modeling analysis. <i>Chemical Engineering Journal</i> , 2022, 430, 132801. | 6.6 | 181 |
| 5 | Effective adsorption of dyes on an activated carbon prepared from carboxymethyl cellulose: Experiments, characterization and advanced modelling. <i>Chemical Engineering Journal</i> , 2021, 417, 128116. | 6.6 | 175 |
| 6 | Removal of caffeine, nicotine and amoxicillin from (waste)waters by various adsorbents. A review. <i>Journal of Environmental Management</i> , 2020, 261, 110236. | 3.8 | 152 |
| 7 | Adsorption of crystal violet on biomasses from pecan nutshell, para chestnut husk, araucaria bark and palm cactus: Experimental study and theoretical modeling via monolayer and double layer statistical physics models. <i>Chemical Engineering Journal</i> , 2019, 378, 122101. | 6.6 | 148 |
| 8 | Extractive Dividing Wall Column: Design and Optimization. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 3672-3688. | 1.8 | 142 |
| 9 | Synthesis and adsorption properties of activated carbons from biomass of <i>Prunus domestica</i> and <i>Jacaranda mimosifolia</i> for the removal of heavy metals and dyes from water. <i>Industrial Crops and Products</i> , 2013, 42, 315-323. | 2.5 | 132 |
| 10 | Optimization of pyrolysis conditions and adsorption properties of bone char for fluoride removal from water. <i>Journal of Analytical and Applied Pyrolysis</i> , 2013, 104, 10-18. | 2.6 | 127 |
| 11 | Adsorption of hazardous dyes on functionalized multiwalled carbon nanotubes in single and binary systems: Experimental study and physicochemical interpretation of the adsorption mechanism. <i>Chemical Engineering Journal</i> , 2020, 389, 124467. | 6.6 | 125 |
| 12 | Adsorption of dyes brilliant blue, sunset yellow and tartrazine from aqueous solution on chitosan: Analytical interpretation via multilayer statistical physics model. <i>Chemical Engineering Journal</i> , 2020, 382, 122952. | 6.6 | 123 |
| 13 | Emerging technologies for biofuel production: A critical review on recent progress, challenges and perspectives. <i>Journal of Environmental Management</i> , 2021, 290, 112627. | 3.8 | 122 |
| 14 | Interpretation of the adsorption mechanism of Reactive Black 5 and Ponceau 4R dyes on chitosan/polyamide nanofibers via advanced statistical physics model. <i>Journal of Molecular Liquids</i> , 2019, 285, 165-170. | 2.3 | 121 |
| 15 | Reactive distillation: A review of optimal design using deterministic and stochastic techniques. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015, 97, 134-143. | 1.8 | 109 |
| 16 | Batch and column studies of Zn ²⁺ removal from aqueous solution using chicken feathers as sorbents. <i>Chemical Engineering Journal</i> , 2011, 167, 67-76. | 6.6 | 108 |
| 17 | Modeling of fixed-bed adsorption of fluoride on bone char using a hybrid neural network approach. <i>Chemical Engineering Journal</i> , 2013, 228, 1098-1109. | 6.6 | 107 |
| 18 | Understanding the adsorption mechanism of phenol and 2-nitrophenol on a biopolymer-based biochar in single and binary systems via advanced modeling analysis. <i>Chemical Engineering Journal</i> , 2019, 371, 1-6. | 6.6 | 107 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Synergic adsorption in the simultaneous removal of acid blue 25 and heavy metals from water using a Ca(PO ₃) ₂ -modified carbon. <i>Journal of Hazardous Materials</i> , 2012, 199-200, 290-300. | 6.5 | 105 |
| 20 | Cuckoo Search: A new nature-inspired optimization method for phase equilibrium calculations. <i>Fluid Phase Equilibria</i> , 2013, 337, 191-200. | 1.4 | 105 |
| 21 | Preparation of activated carbons from pecan nutshell and their application in the antagonistic adsorption of heavy metal ions. <i>Journal of Molecular Liquids</i> , 2017, 230, 686-695. | 2.3 | 102 |
| 22 | Adsorption of amoxicillin and tetracycline on activated carbon prepared from durian shell in single and binary systems: Experimental study and modeling analysis. <i>Chemical Engineering Journal</i> , 2020, 379, 122320. | 6.6 | 101 |
| 23 | Understanding the adsorption of Pb ²⁺ , Hg ²⁺ and Zn ²⁺ from aqueous solution on a lignocellulosic biomass char using advanced statistical physics models and density functional theory simulations. <i>Chemical Engineering Journal</i> , 2019, 365, 305-316. | 6.6 | 94 |
| 24 | Insights on the statistical physics modeling of the adsorption of Cd ²⁺ and Pb ²⁺ ions on bentonite-chitosan composite in single and binary systems. <i>Chemical Engineering Journal</i> , 2018, 354, 569-576. | 6.6 | 93 |
| 25 | Adsorption of ibuprofen on organo-sepiolite and on zeolite/sepiolite heterostructure: Synthesis, characterization and statistical physics modeling. <i>Chemical Engineering Journal</i> , 2019, 371, 868-875. | 6.6 | 92 |
| 26 | Assessment of naproxen adsorption on bone char in aqueous solutions using batch and fixed-bed processes. <i>Journal of Molecular Liquids</i> , 2015, 209, 187-195. | 2.3 | 88 |
| 27 | Optimizing the removal of fluoride from water using new carbons obtained by modification of nut shell with a calcium solution from egg shell. <i>Biochemical Engineering Journal</i> , 2012, 62, 1-7. | 1.8 | 87 |
| 28 | H ₂ O ₂ -activated anthracite impregnated with chitosan as a novel composite for Cr(VI) and methyl orange adsorption in single-compound and binary systems: Modeling and mechanism interpretation. <i>Chemical Engineering Journal</i> , 2020, 380, 122445. | 6.6 | 87 |
| 29 | Preparation and characterization of a novel mountain soursop seeds powder adsorbent and its application for the removal of crystal violet and methylene blue from aqueous solutions. <i>Chemical Engineering Journal</i> , 2020, 391, 123617. | 6.6 | 70 |
| 30 | A new synthesis route for bone chars using CO ₂ atmosphere and their application as fluoride adsorbents. <i>Microporous and Mesoporous Materials</i> , 2015, 209, 38-44. | 2.2 | 66 |
| 31 | Adsorption mechanism of Zn ²⁺ , Ni ²⁺ , Cd ²⁺ , and Cu ²⁺ ions by carbon-based adsorbents: interpretation of the adsorption isotherms via physical modelling. <i>Environmental Science and Pollution Research</i> , 2021, 28, 30943-30954. | 2.7 | 66 |
| 32 | Surfactant-modified serpentine for fluoride and Cr(VI) adsorption in single and binary systems: Experimental studies and theoretical modeling. <i>Chemical Engineering Journal</i> , 2019, 369, 333-343. | 6.6 | 64 |
| 33 | Improving the Adsorption of Heavy Metals from Water Using Commercial Carbons Modified with Egg Shell Wastes. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 9354-9362. | 1.8 | 63 |
| 34 | Physico-chemical characterization of metal-doped bone chars and their adsorption behavior for water defluoridation. <i>Applied Surface Science</i> , 2015, 355, 748-760. | 3.1 | 62 |
| 35 | Adsorption of acid green and procion red on a magnetic geopolymer based adsorbent: Experiments, characterization and theoretical treatment. <i>Chemical Engineering Journal</i> , 2020, 383, 123113. | 6.6 | 61 |
| 36 | Adsorption of dyes with different molecular properties on activated carbons prepared from lignocellulosic wastes by Taguchi method. <i>Microporous and Mesoporous Materials</i> , 2014, 199, 99-107. | 2.2 | 60 |

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| 37 | Insights of the adsorption mechanism of methylene blue on brazilian berries seeds: Experiments, phenomenological modelling and DFT calculations. <i>Chemical Engineering Journal</i> , 2020, 394, 125011. | 6.6 | 60 |
| 38 | Analysis of synergistic and antagonistic adsorption of heavy metals and acid blue 25 on activated carbon from ternary systems. <i>Chemical Engineering Research and Design</i> , 2015, 93, 755-772. | 2.7 | 58 |
| 39 | Synthesis and characterization of a novel amphoteric adsorbent coating for anionic and cationic dyes adsorption: Experimental investigation and statistical physics modelling. <i>Chemical Engineering Journal</i> , 2018, 351, 221-229. | 6.6 | 58 |
| 40 | Monolayer and multilayer adsorption of pharmaceuticals on activated carbon: Application of advanced statistical physics models. <i>Journal of Molecular Liquids</i> , 2019, 283, 276-286. | 2.3 | 57 |
| 41 | Statistical physics interpretation of the adsorption mechanism of Pb ²⁺ , Cd ²⁺ and Ni ²⁺ on chicken feathers. <i>Journal of Molecular Liquids</i> , 2020, 319, 114168. | 2.3 | 57 |
| 42 | Performance and interactions of diclofenac adsorption using Alginate/Carbon-based Films: Experimental investigation and statistical physics modelling. <i>Chemical Engineering Journal</i> , 2022, 428, 131929. | 6.6 | 57 |
| 43 | Iron-modified composite adsorbent coating for azo dye removal and its regeneration by photo-Fenton process: Synthesis, characterization and adsorption mechanism interpretation. <i>Chemical Engineering Journal</i> , 2019, 361, 31-40. | 6.6 | 56 |
| 44 | Novel bare-bones particle swarm optimization and its performance for modeling vapor-liquid equilibrium data. <i>Fluid Phase Equilibria</i> , 2011, 301, 33-45. | 1.4 | 54 |
| 45 | Evaluation of Covariance Matrix Adaptation Evolution Strategy, Shuffled Complex Evolution and Firefly Algorithms for phase stability, phase equilibrium and chemical equilibrium problems. <i>Chemical Engineering Research and Design</i> , 2012, 90, 2051-2071. | 2.7 | 54 |
| 46 | Sorption mechanism of anionic dyes on pecan nut shells (<i>Carya illinoensis</i>) using batch and continuous systems. <i>Industrial Crops and Products</i> , 2013, 48, 89-97. | 2.5 | 54 |
| 47 | Relevance of anionic dye properties on water decolorization performance using bone char: Adsorption kinetics, isotherms and breakthrough curves. <i>Journal of Molecular Liquids</i> , 2016, 219, 425-434. | 2.3 | 54 |
| 48 | Fluoride adsorption properties of cerium-containing bone char. <i>Journal of Fluorine Chemistry</i> , 2017, 197, 63-73. | 0.9 | 54 |
| 49 | Synthesis and characterization of nanostructured calcium oxides supported onto biochar and their application as catalysts for biodiesel production. <i>Renewable Energy</i> , 2020, 160, 52-66. | 4.3 | 53 |
| 50 | Adsorption of methylene blue on comminuted raw avocado seeds: Interpretation of the effect of salts via physical monolayer model. <i>Journal of Molecular Liquids</i> , 2020, 305, 112815. | 2.3 | 53 |
| 51 | Role of the pericarp of <i>Carya illinoensis</i> as biosorbent and as precursor of activated carbon for the removal of lead and acid blue 25 in aqueous solutions. <i>Journal of Analytical and Applied Pyrolysis</i> , 2011, 92, 143-151. | 2.6 | 51 |
| 52 | Breakthrough curve modeling of liquid-phase adsorption of fluoride ions on aluminum-doped bone char using micro-columns: Effectiveness of data fitting approaches. <i>Journal of Molecular Liquids</i> , 2015, 208, 114-121. | 2.3 | 50 |
| 53 | Performance of Stochastic Global Optimization Methods in the Calculation of Phase Stability Analyses for Nonreactive and Reactive Mixtures. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 4764-4772. | 1.8 | 48 |
| 54 | Simultaneous adsorption of acetaminophen, diclofenac and tetracycline by organo-sepiolite: Experiments and statistical physics modelling. <i>Chemical Engineering Journal</i> , 2021, 404, 126601. | 6.6 | 48 |

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| 55 | Valorization of agri-food industry wastes to prepare adsorbents for heavy metal removal from water. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104067. | 3.3 | 48 |
| 56 | A comparative study of particle swarm optimization and its variants for phase stability and equilibrium calculations in multicomponent reactive and non-reactive systems. <i>Fluid Phase Equilibria</i> , 2010, 289, 110-121. | 1.4 | 47 |
| 57 | A new statistical physics model for the ternary adsorption of Cu ²⁺ , Cd ²⁺ and Zn ²⁺ ions on bone char: Experimental investigation and simulations. <i>Chemical Engineering Journal</i> , 2018, 343, 544-553. | 6.6 | 47 |
| 58 | Adsorption of dyes acid red 1 and acid green 25 on grafted clay: Modeling and statistical physics interpretation. <i>Journal of Molecular Liquids</i> , 2019, 294, 111610. | 2.3 | 47 |
| 59 | Understanding the adsorption mechanism of Ag ⁺ and Hg ²⁺ on functionalized layered double hydroxide via statistical physics modeling. <i>Applied Clay Science</i> , 2020, 198, 105828. | 2.6 | 47 |
| 60 | Application of a heterogeneous physical model for the adsorption of Cd ²⁺ , Ni ²⁺ , Zn ²⁺ and Cu ²⁺ ions on flamboyant pods functionalized with citric acid. <i>Chemical Engineering Journal</i> , 2021, 417, 127975. | 6.6 | 47 |
| 61 | Equilibrium study of single and binary adsorption of lead and mercury on bentonite-alginate composite: Experiments and application of two theoretical approaches. <i>Journal of Molecular Liquids</i> , 2018, 253, 160-168. | 2.3 | 46 |
| 62 | Statistical physics modeling and interpretation of methyl orange adsorption on high-order mesoporous composite of MCM-48 silica with treated rice husk. <i>Journal of Molecular Liquids</i> , 2019, 285, 678-687. | 2.3 | 46 |
| 63 | Adsorption of phenol on microwave-assisted activated carbons: Modelling and interpretation. <i>Journal of Molecular Liquids</i> , 2019, 274, 309-314. | 2.3 | 46 |
| 64 | Kinetic, thermodynamic and mechanism study of the adsorption of phenol on Moroccan clay. <i>Journal of Molecular Liquids</i> , 2020, 312, 113383. | 2.3 | 46 |
| 65 | Process Alternatives for Biobutanol Purification: Design and Optimization. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 351-358. | 1.8 | 45 |
| 66 | Statistical physics-based analysis of the adsorption of Cu ²⁺ and Zn ²⁺ onto synthetic cancrinite in single-compound and binary systems. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 103217. | 3.3 | 45 |
| 67 | Ternary adsorption of cobalt, nickel and methylene blue on a modified chitin: Phenomenological modeling and physical interpretation of the adsorption mechanism. <i>International Journal of Biological Macromolecules</i> , 2020, 158, 595-604. | 3.6 | 44 |
| 68 | Preparation of an avocado seed hydrochar and its application as heavy metal adsorbent: Properties and advanced statistical physics modeling. <i>Chemical Engineering Journal</i> , 2021, 419, 129472. | 6.6 | 44 |
| 69 | Adsorption of indium (III) from aqueous solution on raw, ultrasound- and supercritical-modified chitin: Experimental and theoretical analysis. <i>Chemical Engineering Journal</i> , 2019, 373, 1247-1253. | 6.6 | 43 |
| 70 | Tailoring the adsorption behavior of bone char for heavy metal removal from aqueous solution. <i>Adsorption Science and Technology</i> , 2016, 34, 368-387. | 1.5 | 42 |
| 71 | Preparation of a new adsorbent for the removal of arsenic and its simulation with artificial neural network-based adsorption models. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 103928. | 3.3 | 42 |
| 72 | Evaluation of stochastic global optimization methods for modeling vapor-liquid equilibrium data. <i>Fluid Phase Equilibria</i> , 2010, 287, 111-125. | 1.4 | 40 |

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|----|--|-----|-----------|
| 73 | Make it clean, make it safe: A review on virus elimination via adsorption. <i>Chemical Engineering Journal</i> , 2021, 412, 128682. | 6.6 | 40 |
| 74 | Purification of bioethanol using extractive batch distillation: Simulation and experimental studies. <i>Chemical Engineering and Processing: Process Intensification</i> , 2012, 61, 30-35. | 1.8 | 38 |
| 75 | Antagonistic binary adsorption of heavy metals using stratified bone char columns. <i>Journal of Molecular Liquids</i> , 2017, 241, 334-346. | 2.3 | 38 |
| 76 | Engineered biochar: A way forward to environmental remediation. <i>Fuel</i> , 2022, 311, 122510. | 3.4 | 38 |
| 77 | A survey of multi-component sorption models for the competitive removal of heavy metal ions using bush mango and flamboyant biomasses. <i>Journal of Molecular Liquids</i> , 2016, 224, 1041-1054. | 2.3 | 37 |
| 78 | Sorption of heavy metal ions from aqueous solution using acid-treated avocado kernel seeds and its FTIR spectroscopy characterization. <i>Journal of Molecular Liquids</i> , 2016, 215, 555-564. | 2.3 | 37 |
| 79 | Recent advances in aqueous virus removal technologies. <i>Chemosphere</i> , 2022, 305, 135441. | 4.2 | 36 |
| 80 | Constrained and unconstrained Gibbs free energy minimization in reactive systems using genetic algorithm and differential evolution with tabu list. <i>Fluid Phase Equilibria</i> , 2011, 300, 120-134. | 1.4 | 34 |
| 81 | Implementation of a multilayer statistical physics model to interpret the adsorption of food dyes on a chitosan film. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105516. | 3.3 | 34 |
| 82 | Insights and pitfalls of artificial neural network modeling of competitive multi-metallic adsorption data. <i>Journal of Molecular Liquids</i> , 2018, 251, 15-27. | 2.3 | 33 |
| 83 | Adsorption of ibuprofen on cocoa shell biomass-based adsorbents: Interpretation of the adsorption equilibrium via statistical physics theory. <i>Journal of Molecular Liquids</i> , 2021, 331, 115697. | 2.3 | 33 |
| 84 | Design, optimization and controllability of an alternative process based on extractive distillation for an ethane-carbon dioxide mixture. <i>Chemical Engineering and Processing: Process Intensification</i> , 2013, 74, 55-68. | 1.8 | 32 |
| 85 | Trapping of Ag ⁺ , Cu ²⁺ , and Co ²⁺ by faujasite zeolite Y: New interpretations of the adsorption mechanism via DFT and statistical modeling investigation. <i>Chemical Engineering Journal</i> , 2021, 420, 127712. | 6.6 | 32 |
| 86 | Water defluoridation with avocado-based adsorbents: Synthesis, physicochemical characterization and thermodynamic studies. <i>Journal of Molecular Liquids</i> , 2018, 254, 188-197. | 2.3 | 31 |
| 87 | Artificial neural network-based surrogate modeling of multi-component dynamic adsorption of heavy metals with a biochar. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 5389-5400. | 3.3 | 30 |
| 88 | Adsorption of copper (II) cation on polysulfone/zeolite blend sheet membrane: Synthesis, characterization, experiments and adsorption modelling. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 601, 124980. | 2.3 | 30 |
| 89 | Physicochemical analysis of multilayer adsorption mechanism of anionic dyes on lignocellulosic biomasses via statistical physics and density functional theory. <i>Journal of Molecular Liquids</i> , 2021, 322, 114511. | 2.3 | 29 |
| 90 | Three-dimensional mass transport modeling of pharmaceuticals adsorption inside ZnAl/biochar composite. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 614, 126170. | 2.3 | 29 |

| # | ARTICLE | IF | CITATIONS |
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| 91 | An improved ant colony optimization method and its application for the thermodynamic modeling of phase equilibrium. <i>Fluid Phase Equilibria</i> , 2013, 353, 121-131. | 1.4 | 28 |
| 92 | Fluoride adsorption from aqueous solution using a protonated clinoptilolite and its modeling with artificial neural network-based equations. <i>Journal of Fluorine Chemistry</i> , 2017, 204, 98-106. | 0.9 | 28 |
| 93 | Adsorption of methylene blue on silica nanoparticles: Modelling analysis of the adsorption mechanism via a double layer model. <i>Journal of Molecular Liquids</i> , 2020, 319, 114348. | 2.3 | 28 |
| 94 | Fabrication and characterization of a thin coated adsorbent for antibiotic and analgesic adsorption: Experimental investigation and statistical physical modelling. <i>Chemical Engineering Journal</i> , 2020, 401, 126007. | 6.6 | 28 |
| 95 | Utilizing modified weathered basalt as a novel approach in the preparation of Fe ₃ O ₄ nanoparticles: Experimental and theoretical studies for crystal violet adsorption. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106220. | 3.3 | 28 |
| 96 | Statistical physics modeling and interpretation of the adsorption of dye remazol black B on natural and carbonized biomasses. <i>Journal of Molecular Liquids</i> , 2020, 299, 112099. | 2.3 | 27 |
| 97 | Dynamic analysis of thermally coupled distillation sequences with unidirectional flows for the separation of ternary mixtures. <i>Korean Journal of Chemical Engineering</i> , 2006, 23, 689-698. | 1.2 | 26 |
| 98 | Evaluation of integrated differential evolution and unified bare-bones particle swarm optimization for phase equilibrium and stability problems. <i>Fluid Phase Equilibria</i> , 2011, 310, 129-141. | 1.4 | 26 |
| 99 | Polyester fiber production using virgin and recycled PET. <i>Fibers and Polymers</i> , 2014, 15, 547-552. | 1.1 | 26 |
| 100 | Lanthanum- and cerium-based functionalization of chars and activated carbons for the adsorption of fluoride and arsenic ions. <i>International Journal of Environmental Science and Technology</i> , 2020, 17, 115-128. | 1.8 | 26 |
| 101 | Novel biochar and hydrochar for the adsorption of 2-nitrophenol from aqueous solutions: An approach using the PVSDM model. <i>Chemosphere</i> , 2021, 269, 128748. | 4.2 | 26 |
| 102 | Cr(VI) adsorption onto a new composite prepared from Meidum black clay and pomegranate peel extract: Experiments and physicochemical interpretations. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105352. | 3.3 | 26 |
| 103 | Chemical modification of <i>Byrsonima crassifolia</i> with citric acid for the competitive sorption of heavy metals from water. <i>International Journal of Environmental Science and Technology</i> , 2015, 12, 2867-2880. | 1.8 | 25 |
| 104 | An artificial neural network-based NRTL model for simulating liquid-liquid equilibria of systems present in biofuels production. <i>Fluid Phase Equilibria</i> , 2019, 483, 153-164. | 1.4 | 25 |
| 105 | Neural Network Modeling of Heavy Metal Sorption on Lignocellulosic Biomasses: Effect of Metallic Ion Properties and Sorbent Characteristics. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 443-453. | 1.8 | 24 |
| 106 | Removal of heavy metals and arsenic from aqueous solution using textile wastes from denim industry. <i>International Journal of Environmental Science and Technology</i> , 2015, 12, 1657-1668. | 1.8 | 24 |
| 107 | Synergistic adsorption of Pb ²⁺ and CrO ₄ ²⁻ on an engineered biochar highlighted by statistical physical modeling. <i>Journal of Molecular Liquids</i> , 2020, 312, 113483. | 2.3 | 24 |
| 108 | Calculation of homogeneous azeotropes in reactive and non-reactive mixtures using a stochastic optimization approach. <i>Fluid Phase Equilibria</i> , 2009, 281, 22-31. | 1.4 | 23 |

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| 109 | Novel hybrid multifunctional composite of chitosan and altered basalt for barium adsorption: Experimental and theoretical studies. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 593, 124613. | 2.3 | 23 |
| 110 | Theoretical assessment of the adsorption mechanism of ibuprofen, ampicillin, orange G and malachite green on a biomass functionalized with plasma. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104950. | 3.3 | 23 |
| 111 | Cyclohexane and benzene separation by fixed-bed adsorption on activated carbons prepared from coconut shell. <i>Environmental Technology and Innovation</i> , 2022, 25, 102076. | 3.0 | 23 |
| 112 | Experimental and Theoretical Studies of Methyl Orange Uptake by Mn ²⁺ -Rich Synthetic Mica: Insights into Manganese Role in Adsorption and Selectivity. <i>Nanomaterials</i> , 2020, 10, 1464. | 1.9 | 22 |
| 113 | Enhanced adsorption of ketoprofen and 2,4-dichlorophenoxyacetic acid on <i>Physalis peruviana</i> fruit residue functionalized with H ₂ SO ₄ : Adsorption properties and statistical physics modeling. <i>Chemical Engineering Journal</i> , 2022, 445, 136773. | 6.6 | 22 |
| 114 | Short-Cut Method for the Design of Reactive Distillation Columns. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 10730-10743. | 1.8 | 21 |
| 115 | Role of acid blue 25 dye as active site for the adsorption of Cd ²⁺ and Zn ²⁺ using activated carbons. <i>Dyes and Pigments</i> , 2013, 96, 459-466. | 2.0 | 21 |
| 116 | Unconstrained Gibbs Free Energy Minimization for Phase Equilibrium Calculations in Nonreactive Systems, Using an Improved Cuckoo Search Algorithm. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 10826-10834. | 1.8 | 21 |
| 117 | Analysis and modeling of multicomponent sorption of heavy metals on chicken feathers using Taguchi's experimental designs and artificial neural networks. <i>Desalination and Water Treatment</i> , 2015, 55, 1885-1899. | 1.0 | 21 |
| 118 | Exfoliated Clay Decorated with Magnetic Iron Nanoparticles for Crystal Violet Adsorption: Modeling and Physicochemical Interpretation. <i>Nanomaterials</i> , 2020, 10, 1454. | 1.9 | 21 |
| 119 | Residual Mexican biomasses for bioenergy and fine chemical production: correlation between composition and specific applications. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 619-631. | 2.9 | 21 |
| 120 | Recycling of Tetra pak wastes via pyrolysis: Characterization of solid products and application of the resulting char in the adsorption of mercury from water. <i>Journal of Cleaner Production</i> , 2021, 291, 125219. | 4.6 | 21 |
| 121 | Adsorption of 3-aminophenol and resorcinol on avocado seed activated carbon: Mathematical modelling, thermodynamic study and description of adsorbent performance. <i>Journal of Molecular Liquids</i> , 2021, 342, 116952. | 2.3 | 21 |
| 122 | Preparation, characterization and analyses of carbons with natural and induced calcium compounds for the adsorption of fluoride. <i>Journal of Analytical and Applied Pyrolysis</i> , 2014, 105, 75-82. | 2.6 | 20 |
| 123 | Physicochemical assessment of anionic dye adsorption on bone char using a multilayer statistical physics model. <i>Environmental Science and Pollution Research</i> , 2021, 28, 67248-67255. | 2.7 | 20 |
| 124 | A novel multifunctional adsorbent of pomegranate peel extract and activated anthracite for Mn(VII) and Cr(VI) uptake from solutions: Experiments and theoretical treatment. <i>Journal of Molecular Liquids</i> , 2020, 311, 113169. | 2.3 | 20 |
| 125 | Integrated Differential Evolution for Global Optimization and Its Performance for Modeling Vapor-Liquid Equilibrium Data. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 10047-10061. | 1.8 | 19 |
| 126 | Importance of iron oxides on the carbons surface vs the specific surface for VOC's adsorption. <i>Ecological Engineering</i> , 2017, 106, 400-408. | 1.6 | 19 |

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|-----|--|-----|-----------|
| 127 | One-step fabrication of a new outstanding rutile TiO ₂ nanoparticles/anthracite adsorbent: Modeling and physicochemical interpretations for malachite green removal. <i>Chemical Engineering Journal</i> , 2021, 426, 131890. | 6.6 | 19 |
| 128 | Modeling of liquid-liquid equilibrium of systems relevant for biodiesel production using Backtracking Search Optimization. <i>Fluid Phase Equilibria</i> , 2015, 388, 84-92. | 1.4 | 18 |
| 129 | Synthesis of denim waste-based adsorbents and their application in water defluoridation. <i>Journal of Molecular Liquids</i> , 2016, 221, 469-478. | 2.3 | 18 |
| 130 | Physicochemical interpretation of the adsorption of 4-Bromophenol and 4-Chloroaniline on an activated carbon. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104542. | 3.3 | 18 |
| 131 | Preparation of a Hybrid Membrane from Whey Protein Fibrils and Activated Carbon to Remove Mercury and Chromium from Water. <i>Membranes</i> , 2020, 10, 386. | 1.4 | 18 |
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