

# Jorge Bedia

## List of Publications by Year in descending order

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97  
papers

5,340  
citations

57631

44  
h-index

88477

70  
g-index

99  
all docs

99  
docs citations

99  
times ranked

5551  
citing authors

#	ARTICLE	IF	CITATIONS
1	The production of submicron diameter carbon fibers by the electrospinning of lignin. <i>Carbon</i> , 2010, 48, 696-705.	5.4	240
2	Filled and Hollow Carbon Nanofibers by Coaxial Electrospinning of Alcell Lignin without Binder Polymers. <i>Advanced Materials</i> , 2007, 19, 4292-4296.	11.1	217
3	A Review on the Synthesis and Characterization of Metal Organic Frameworks for Photocatalytic Water Purification. <i>Catalysts</i> , 2019, 9, 52.	1.6	215
4	HEMP-derived activated carbon fibers by chemical activation with phosphoric acid. <i>Fuel</i> , 2009, 88, 19-26.	3.4	208
5	Pd supported on mesoporous activated carbons with high oxidation resistance as catalysts for toluene oxidation. <i>Applied Catalysis B: Environmental</i> , 2010, 94, 8-18.	10.8	180
6	Phenol adsorption on high microporous activated carbons prepared from oily sludge: equilibrium, kinetic and thermodynamic studies. <i>Scientific Reports</i> , 2019, 9, 19352.	1.6	151
7	Task-specific ionic liquids for efficient ammonia absorption. <i>Separation and Purification Technology</i> , 2011, 82, 43-52.	3.9	140
8	Mixed Ti-Zr metal-organic-frameworks for the photodegradation of acetaminophen under solar irradiation. <i>Applied Catalysis B: Environmental</i> , 2019, 253, 253-262.	10.8	137
9	Preparation and characterization of carbon based acid catalysts for the dehydration of 2-propanol. <i>Carbon</i> , 2009, 47, 286-294.	5.4	130
10	Ethanol dehydration to ethylene on acid carbon catalysts. <i>Applied Catalysis B: Environmental</i> , 2011, 103, 302-310.	10.8	128
11	Zr-doped TiO <sub>2</sub> supported on delaminated clay materials for solar photocatalytic treatment of emerging pollutants. <i>Journal of Hazardous Materials</i> , 2017, 322, 233-242.	6.5	97
12	Insights on the statistical physics modeling of the adsorption of Cd <sup>2+</sup> and Pb <sup>2+</sup> ions on bentonite-chitosan composite in single and binary systems. <i>Chemical Engineering Journal</i> , 2018, 354, 569-576.	6.6	93
13	Adsorption of antipyrine by activated carbons from FeCl <sub>3</sub> -activation of Tara gum. <i>Chemical Engineering Journal</i> , 2018, 333, 58-65.	6.6	92
14	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
15	Optimized ionic liquids for toluene absorption. <i>AIChE Journal</i> , 2013, 59, 1648-1656.	1.8	90
16	Preparation of Hemp-Derived Activated Carbon Monoliths. Adsorption of Water Vapor. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 1288-1296.	1.8	88
17	A kinetic study of 2-propanol dehydration on carbon acid catalysts. <i>Journal of Catalysis</i> , 2010, 271, 33-42.	3.1	87
18	Review on Activated Carbons by Chemical Activation with FeCl <sub>3</sub> . <i>Journal of Carbon Research</i> , 2020, 6, 21.	1.4	86

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19	C-modified TiO <sub>2</sub> using lignin as carbon precursor for the solar photocatalytic degradation of acetaminophen. <i>Chemical Engineering Journal</i> , 2019, 358, 1574-1582.	6.6	82
20	A Review on the Synthesis and Characterization of Biomass-Derived Carbons for Adsorption of Emerging Contaminants from Water. <i>Journal of Carbon Research</i> , 2018, 4, 63.	1.4	80
21	Titania-clay heterostructures with solar photocatalytic applications. <i>Applied Catalysis B: Environmental</i> , 2015, 176-177, 278-287.	10.8	78
22	Anion Effects on Kinetics and Thermodynamics of CO <sub>2</sub> Absorption in Ionic Liquids. <i>Journal of Physical Chemistry B</i> , 2013, 117, 3398-3406.	1.2	77
23	Highly stable Fe on activated carbon catalysts for CWPO upon FeCl <sub>3</sub> activation of lignin from black liquors. <i>Catalysis Today</i> , 2012, 187, 115-121.	2.2	76
24	ZnO/sepiolite heterostructured materials for solar photocatalytic degradation of pharmaceuticals in wastewater. <i>Applied Clay Science</i> , 2018, 156, 104-109.	2.6	76
25	Degradation pathways of emerging contaminants using TiO <sub>2</sub> -activated carbon heterostructures in aqueous solution under simulated solar light. <i>Chemical Engineering Journal</i> , 2020, 392, 124867.	6.6	76
26	Screening ionic liquids as suitable ammonia absorbents on the basis of thermodynamic and kinetic analysis. <i>Separation and Purification Technology</i> , 2012, 95, 188-195.	3.9	73
27	Iron catalysts by chemical activation of sewage sludge with FeCl <sub>3</sub> for CWPO. <i>Chemical Engineering Journal</i> , 2017, 318, 224-230.	6.6	72
28	Solar photocatalytic purification of water with Ce-doped TiO <sub>2</sub> /clay heterostructures. <i>Catalysis Today</i> , 2016, 266, 36-45.	2.2	69
29	Semiconductor Photocatalysis for Water Purification. , 2019, , 581-651.		68
30	Diffusion Coefficients of CO <sub>2</sub> in Ionic Liquids Estimated by Gravimetry. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 13782-13789.	1.8	64
31	Degradation of diclofenac in water under LED irradiation using combined g-C <sub>3</sub> N <sub>4</sub> /NH <sub>2</sub> -MIL-125 photocatalysts. <i>Journal of Hazardous Materials</i> , 2021, 416, 126199.	6.5	64
32	Influence of Water Vapor on the Adsorption of VOCs on Lignin-Based Activated Carbons. <i>Separation Science and Technology</i> , 2005, 40, 3113-3135.	1.3	61
33	Isopropanol decomposition on carbon based acid and basic catalysts. <i>Catalysis Today</i> , 2010, 158, 89-96.	2.2	59
34	Comparison of different precious metals in activated carbon-supported catalysts for the gas-phase hydrodechlorination of chloromethanes. <i>Applied Catalysis B: Environmental</i> , 2013, 132-133, 256-265.	10.8	59
35	On the preparation and characterization of chars and activated carbons from orange skin. <i>Fuel Processing Technology</i> , 2010, 91, 1345-1354.	3.7	58
36	Methanol decomposition on electrospun zirconia nanofibers. <i>Catalysis Today</i> , 2012, 187, 77-87.	2.2	58

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37	Solar photocatalytic degradation of parabens using UiO-66-NH <sub>2</sub> . Separation and Purification Technology, 2022, 286, 120467.	3.9	58
38	Nanoscale zero-valent iron@mesoporous hydrated silica core-shell particles with enhanced dispersibility, transportability and degradation of chlorinated aliphatic hydrocarbons. Chemical Engineering Journal, 2018, 343, 619-628.	6.6	57
39	Microwave-assisted synthesis of NH <sub>2</sub> -MIL-125(Ti) for the solar photocatalytic degradation of aqueous emerging pollutants in batch and continuous tests. Journal of Environmental Chemical Engineering, 2021, 9, 106230.	3.3	56
40	Kinetic study of the decomposition of 2-butanol on carbon-based acid catalyst. AIChE Journal, 2010, 56, 1557-1568.	1.8	55
41	Effect of Activating Agent on the Properties of TiO <sub>2</sub> /Activated Carbon Heterostructures for Solar Photocatalytic Degradation of Acetaminophen. Materials, 2019, 12, 378.	1.3	51
42	Hierarchical porous carbons by liquid phase impregnation of zeolite templates with lignin solution. Microporous and Mesoporous Materials, 2014, 196, 68-78.	2.2	50
43	Encapsulated ionic liquids (ENILs): from continuous to discrete liquid phase. Chemical Communications, 2012, 48, 10046.	2.2	49
44	Simultaneous adsorption of acetaminophen, diclofenac and tetracycline by organo-sepiolite: Experiments and statistical physics modelling. Chemical Engineering Journal, 2021, 404, 126601.	6.6	48
45	Solubility and Diffusivity of CO <sub>2</sub> in [hxmim][NTf <sub>2</sub> ], [omim][NTf <sub>2</sub> ], and [dcmim][NTf <sub>2</sub> ] at <i>T</i> = (298.15, 308.15, and 323.15) K and Pressures up to 20 bar. Journal of Chemical & Engineering Data, 2014, 59, 212-217.	1.0	45
46	Ammonia capture from the gas phase by encapsulated ionic liquids (ENILs). RSC Advances, 2016, 6, 61650-61660.	1.7	45
47	Synthesis of noble metal-decorated NH <sub>2</sub> -MIL-125 titanium MOF for the photocatalytic degradation of acetaminophen under solar irradiation. Separation and Purification Technology, 2021, 272, 118896.	3.9	45
48	Pd-activated carbon catalysts for hydrogenation and Suzuki reactions. Applied Catalysis A: General, 2009, 368, 113-120.	2.2	44
49	Biochar mediates activation of aged nanoscale ZVI by <i>Shewanella putrefaciens</i> CN32 to enhance the degradation of Pentachlorophenol. Chemical Engineering Journal, 2019, 368, 148-156.	6.6	44
50	A review on alkaline earth metal titanates for applications in photocatalytic water purification. Chemical Engineering Journal, 2021, 409, 128110.	6.6	42
51	Ag-Coated Heterostructures of ZnO-TiO <sub>2</sub> /Delaminated Montmorillonite as Solar Photocatalysts. Materials, 2017, 10, 960.	1.3	39
52	Activated carbon as catalyst in wet oxidation of phenol: Effect of the oxidation reaction on the catalyst properties and stability. Applied Catalysis B: Environmental, 2008, 81, 122-131.	10.8	38
53	Enhanced activity of carbon-supported Pd-Pt catalysts in the hydrodechlorination of dichloromethane. Applied Catalysis B: Environmental, 2016, 184, 55-63.	10.8	38
54	TiO <sub>2</sub> -carbon microspheres as photocatalysts for effective remediation of pharmaceuticals under simulated solar light. Separation and Purification Technology, 2021, 275, 119169.	3.9	38

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55	Assessment of ionic liquids as H <sub>2</sub> S physical absorbents by thermodynamic and kinetic analysis based on process simulation. <i>Separation and Purification Technology</i> , 2020, 233, 116050.	3.9	37
56	Reprint of ZnO/sepiolite heterostructured materials for solar photocatalytic degradation of pharmaceuticals in wastewater. <i>Applied Clay Science</i> , 2018, 160, 3-8.	2.6	36
57	Hydrodechlorination of dichloromethane with mono- and bimetallic Pd/Pt on sulfated and tungstated zirconia catalysts. <i>Journal of Catalysis</i> , 2012, 294, 207-215.	3.1	35
58	Equilibrium, kinetics and breakthrough curves of acetaminophen adsorption onto activated carbons from microwave-assisted FeCl <sub>3</sub> -activation of lignin. <i>Separation and Purification Technology</i> , 2021, 278, 119654.	3.9	35
59	UiO-66-based metal organic frameworks for the photodegradation of acetaminophen under simulated solar irradiation. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106087.	3.3	34
60	Highly stable UiO-66-NH <sub>2</sub> by the microwave-assisted synthesis for solar photocatalytic water treatment. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107122.	3.3	32
61	Highly stable iron catalysts from sewage sludge for CWPO. <i>Journal of Environmental Chemical Engineering</i> , 2014, 2, 2359-2364.	3.3	30
62	Thermal Post-Treatments to Enhance the Water Stability of NH <sub>2</sub> -MIL-125(Ti). <i>Catalysts</i> , 2020, 10, 603.	1.6	30
63	Improved synthesis and hydrothermal stability of Pt/C catalysts based on size-controlled nanoparticles. <i>Catalysis Science and Technology</i> , 2016, 6, 5196-5206.	2.1	29
64	Removal of emerging pollutants in aqueous phase by heterogeneous Fenton and photo-Fenton with Fe <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> -clay heterostructures. <i>Environmental Science and Pollution Research</i> , 2020, 27, 38434-38445.	2.7	29
65	Gas-phase hydrodechlorination of mixtures of chloromethanes with activated carbon-supported platinum catalysts. <i>Applied Catalysis B: Environmental</i> , 2015, 179, 551-557.	10.8	26
66	Effect of the Pt/Pd molar ratio in bimetallic catalysts supported on sulfated zirconia on the gas-phase hydrodechlorination of chloromethanes. <i>Journal of Catalysis</i> , 2017, 352, 562-571.	3.1	25
67	Metal-Loaded Mesoporous MCM-41 for the Catalytic Wet Peroxide Oxidation (CWPO) of Acetaminophen. <i>Catalysts</i> , 2021, 11, 219.	1.6	25
68	Recent Inventions in Glycerol Transformations and Processing. <i>Recent Patents on Chemical Engineering</i> , 2010, 2, 11-21.	0.5	25
69	CO <sub>2</sub> Capture by Supported Ionic Liquid Phase: Highlighting the Role of the Particle Size. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 13089-13097.	3.2	24
70	Water vapour adsorption on lignin-based activated carbons. <i>Journal of Chemical Technology and Biotechnology</i> , 2007, 82, 548-557.	1.6	23
71	Acetylene absorption by ionic liquids: A multiscale analysis based on molecular and process simulation. <i>Separation and Purification Technology</i> , 2018, 204, 38-48.	3.9	22
72	Valorization of chloromethanes by hydrodechlorination with metallic catalysts. <i>Catalysis Today</i> , 2018, 310, 75-85.	2.2	21

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73	Chloroform conversion into ethane and propane by catalytic hydrodechlorination with Pd supported on activated carbons from lignin. <i>Catalysis Science and Technology</i> , 2018, 8, 3926-3935.	2.1	21
74	Removal of phenol and phosphate from aqueous solutions using activated carbons prepared from oily sludge through physical and chemical activation. <i>Water Science and Technology</i> , 2019, 80, 575-586.	1.2	19
75	Comparison of the behavior of ZVI/carbon composites from both commercial origin and from spent Li-ion batteries and mill scale for the removal of ibuprofen in water. <i>Journal of Environmental Management</i> , 2020, 264, 110480.	3.8	19
76	Photostability and photocatalytic degradation of ionic liquids in water under solar light. <i>RSC Advances</i> , 2019, 9, 2026-2033.	1.7	18
77	Zero-valent iron-copper bimetallic catalyst supported on graphite from spent lithium-ion battery anodes and mill scale waste for the degradation of 4-chlorophenol in aqueous phase. <i>Separation and Purification Technology</i> , 2022, 286, 120466.	3.9	18
78	Kinetics of pyrolytic carbon infiltration for the preparation of ceramic/carbon and carbon/carbon composites. <i>Carbon</i> , 2004, 42, 1285-1290.	5.4	16
79	Colloidal and microemulsion synthesis of rhenium nanoparticles in aqueous medium. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 469, 202-210.	2.3	16
80	Solar photocatalytic degradation of emerging contaminants using NH <sub>2</sub> -MIL-125 grafted by heterocycles. <i>Separation and Purification Technology</i> , 2022, 297, 121442.	3.9	15
81	Kinetic Study of the Hydrodechlorination of Chloromethanes with Activated-Carbon-Supported Metallic Catalysts. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 2023-2029.	1.8	13
82	Anchoring of 10-phenylphenothiazine to mesoporous silica materials: A water compatible organic photocatalyst for the degradation of pollutants. <i>Journal of Materials Science and Technology</i> , 2022, 103, 134-143.	5.6	13
83	Promoting Light Hydrocarbons Yield by Catalytic Hydrodechlorination of Residual Chloromethanes Using Palladium Supported on Zeolite Catalysts. <i>Catalysts</i> , 2020, 10, 199.	1.6	12
84	Methanol-Promoted Oxidation of Nitrogen Oxide (NO <sub>x</sub> ) by Encapsulated Ionic Liquids. <i>Environmental Science &amp; Technology</i> , 2019, 53, 11969-11978.	4.6	10
85	Effects of pH value and calcium hardness on the removal of 1,1,1-trichloroethane by immobilized nanoscale zero-valent iron on silica based supports. <i>Chemosphere</i> , 2018, 211, 102-111.	4.2	9
86	Selectivity to Olefins in the Hydrodechlorination of Chloroform with Activated Carbon-Supported Palladium Catalysts. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 20592-20600.	1.8	9
87	Metal Organic Frameworks for Advanced Applications. <i>Catalysts</i> , 2021, 11, 648.	1.6	8
88	Structured photocatalysts for the removal of emerging contaminants under visible or solar light. , 2020, , 41-98.		6
89	Ordered Mesoporous Carbon as a Support for Palladium-Based Hydrodechlorination Catalysts. <i>Catalysts</i> , 2021, 11, 23.	1.6	6
90	Effect of the operating conditions on the colloidal and microemulsion synthesis of Pt in aqueous phase. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 525, 77-84.	2.3	5

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91	Metal-organic frameworks for water purification. , 2020, , 241-283.		5
92	Enhanced selectivity to olefins in the hydrodechlorination of trichloromethane using Ag-Pd on activated carbon catalysts. Journal of Environmental Chemical Engineering, 2021, 9, 104744.	3.3	5
93	Enhanced photodegradation of acetaminophen over Sr@TiO <sub>2</sub> /UiO-66-NH <sub>2</sub> heterostructures under solar light irradiation. Chemical Engineering Journal, 2022, 446, 137229.	6.6	5
94	Design of hydrodechlorination catalysts on the basis of chloromethanes-metallic active sites interactions. Chemical Engineering Journal, 2022, , 136893.	6.6	3
95	TiO <sub>2</sub> :Cex onto Al Clays for Photocatalytic Solar Water Disinfection. International Journal of Photoenergy, 2020, 2020, 1-5.	1.4	1
96	Carbons from Biomasic Waste and their Applications. Journal of Carbon Research, 2019, 5, 59.	1.4	0
97	Special Issue on New Carbon Materials from Biomass and Their Applications. Applied Sciences (Switzerland), 2021, 11, 2453.	1.3	0