Ljubisa R Radovic

List of Publications by Year
in descending order

103 papers	7,190 citations	53794 45 h-index	54911 84 g-index
110 all docs	110 docs citations	110 times ranked	6144 citing authors

#	Article	IF	Citations
1	On the Chemical Nature of Graphene Edges:â€‰ Origin of Stability and Potential for Magnetism in Carbon Materials. Journal of the American Chemical Society, 2005, 127, 5917-5927.	13.7	500
2	Evidence for the protonation of basal plane sites on carbon. Carbon, 1992, 30, 797-811.	10.3	469
3	Importance of carbon active sites in the gasification of coal chars. Fuel, 1983, 62, 849-856.	6.4	463
4	An experimental and theoretical study of the adsorption of aromatics possessing electron-withdrawing and electron-donating functional groups by chemically modified activated carbons. Carbon, 1997, 35, 1339-1348.	10.3	377
5	On the Modification and Characterization of Chemical Surface Properties of Activated Carbon:Â In the Search of Carbons with Stable Basic Properties. Langmuir, 1996, 12, 4404-4410.	3.5	319
6	Importance of catalyst dispersion in the gasification of lignite chars. Journal of Catalysis, 1983, 82, 382-394.	6.2	191
7	Active Sites in Graphene and the Mechanism of CO₂ Formation in Carbon Oxidation. Journal of the American Chemical Society, 2009, 131, 17166-17175.	13.7	187
8	On the kinetics of carbon (Char) gasification: Reconciling models with experiments. Carbon, 1990, 28, 7-19.	10.3	177
9	NO Reduction by Activated Carbons. 7. Some Mechanistic Aspects of Uncatalyzed and Catalyzed Reaction. Energy & Fuels, 1996, 10, 158-168.	5.1	177
10	Inhibition of catalytic oxidation of carbon/carbon composites by phosphorus. Carbon, 2006, 44, 141-151.	10.3	171
11	Influence of char surface chemistry on the reduction of nitric oxide with chars. Energy & Fuels, 1993, 7, 85-89.	5.1	166
12	The role of substitutional boron in carbon oxidation. Carbon, 1998, 36, 1841-1854.	10.3	149
13	On the difference between the isoelectric point and the point of zero charge of carbons. Carbon, 1995, 33, 1655-1657.	10.3	147
14	Structural and Textural Properties of Pyrolytic Carbon Formed within a Microporous Zeolite Template. Chemistry of Materials, 1998, 10, 550-558.	6.7	144
15	Hydrodeoxygenation of guaiacol over carbon-supported molybdenum nitride catalysts: Effects of nitriding methods and support properties. Applied Catalysis A: General, 2012, 439-440, 111-124.	4.3	126
16	NO Reduction by Activated Carbons. 2. Catalytic Effect of Potassium. Energy & Fuels, 1995, 9, 97-103.	5.1	123
17	Oxidation inhibition effects of phosphorus and boron in different carbon fabrics. Carbon, 2003, 41, 1987-1997.	10.3	113
18	Hydrodeoxygenation of 2-methoxyphenol over Mo2N catalysts supported on activated carbons. Catalysis Today, 2011, 172, 232-239.	4.4	109

#	Article	IF	Citations
19	Effect of lignite pyrolysis conditions on calcium oxide dispersion and subsequent char reactivity. Fuel, 1983, 62, 209-212.	6.4	104
20	Effects of acid treatments of carbon on N2O and NO reduction by carbon-supported copper catalysts. Carbon, 2000, 38, 451-464.	10.3	103
21	The mechanism of CO2 chemisorption on zigzag carbon active sites: A computational chemistry study. Carbon, 2005, 43, 907-915.	10.3	102
22	Further development of Raman Microprobe spectroscopy for characterization of char reactivity. Proceedings of the Combustion Institute, 2007, 31, 1881-1887.	3.9	101
23	Gate-Voltage Control of Oxygen Diffusion on Graphene. Physical Review Letters, 2011, 106, 146802.	7.8	99
24	On the Modification and Characterization of Chemical Surface Properties of Activated Carbon:Â Microcalorimetric, Electrochemical, and Thermal Desorption Probes. Langmuir, 1997, 13, 3414-3421.	3.5	96
25	Combined effects of inorganic constituents and pyrolysis conditions on the gasification reactivity of coal chars. Fuel Processing Technology, 1985, 10, 311-326.	7.2	84
26	On the importance of the electrokinetic properties of carbons for their use as catalyst supports. Carbon, 1990, 28, 369-375.	10.3	80
27	Oxygen migration on the graphene surface. 2. Thermochemistry of basal-plane diffusion (hopping). Carbon, 2011, 49, 4226-4238.	10.3	78
28	On the porous structure of coals: Evidence for an interconnected but constricted micropore system and implications for coalbed methane recovery. Adsorption, 1997, 3, 221-232.	3.0	77
29	A transient kinetics study of char gasification in carbon dioxide and oxygen. Energy & Fuels, 1991, 5, 68-74.	5.1	73
30	Nanocarbons. Carbon, 2002, 40, 2279-2282.	10.3	72
31	Low-Temperature Generation of Basic Carbon Surfaces by Hydrogen Spillover. The Journal of Physical Chemistry, 1996, 100, 17243-17248.	2.9	70
32	NO Reduction by Activated Carbons. 4. Catalysis by Calcium. Energy & Fuels, 1995, 9, 112-118.	5.1	69
33	NO Reduction by Activated Carbons. 3. Influence of Catalyst Loading on the Catalytic Effect of Potassium. Energy & Fuels, 1995, 9, 104-111.	5.1	62
34	Ionic strength effects in aqueous phase adsorption of metal ions on activated carbons. Carbon, 2003, 41, 2020-2022.	10.3	62
35	Oxygen migration on the graphene surface. 1. Origin of epoxide groups. Carbon, 2011, 49, 4218-4225.	10.3	61
36	Microemulsion-Mediated Synthesis of Nanosize Molybdenum Sulfide Particles. Journal of Colloid and Interface Science, 1994, 163, 120-129.	9.4	60

#	Article	IF	Citations
37	NO Reduction by Activated Carbons. 5. Catalytic Effect of Iron. Energy & Fuels, 1995, 9, 540-548.	5.1	60
38	High surface area graphitized carbon with uniform mesopores synthesised by a colloidal imprinting methodElectronic supplementary information (ESI) available: experimental: preparation of the graphitized colloid-impregnated carbon. See http://www.rsc.org/suppdata/cc/b2/b200702a/. Chemical Communications, 2002, , 1346-1347.	4.1	59
39	Catalytic coal gasification: use of calcium versus potassiumâ˜†. Fuel, 1984, 63, 1028-1030.	6.4	58
40	Effects of surface and structural properties of carbons on the behavior of carbon-supported molybdenum catalysts. Journal of Catalysis, 1991, 129, 330-342.	6.2	55
41	Ab Initio Molecular Orbital Study on the Electronic Structures and Reactivity of Boron-Substituted Carbon. Journal of Physical Chemistry A, 2004, 108, 9180-9187.	2.5	55
42	Catalytic oxidation of carbon/carbon composite materials in the presence of potassium and calcium acetates. Carbon, 2005, 43, 333-344.	10.3	51
43	Inhibition of catalytic oxidation of carbon/carbon composites by boron-doping. Carbon, 2005, 43, 1768-1777.	10.3	51
44	Similarities and differences in O2 chemisorption on graphene nanoribbon vs. carbon nanotube. Carbon, 2012, 50, 1152-1162.	10.3	50
45	Transient kinetics study of catalytic char gasification in carbon dioxide. Industrial & Engineering Chemistry Research, 1991, 30, 1735-1744.	3.7	49
46	On the mechanism of nascent site deactivation in graphene. Carbon, 2011, 49, 3471-3487.	10.3	46
47	Effect of oxygen chemisorption on char gasification reactivity profiles obtained by thermogravimetric analysis. Fuel, 1988, 67, 1691-1695.	6.4	44
48	Potassium-Containing Coal Chars as Catalysts for NOx Reduction in the Presence of Oxygen. Energy & Fuels, 1998, 12, 1256-1264.	5.1	44
49	A new kinetic model for the NOâ€“carbon reaction. Chemical Engineering Science, 1999, 54, 4125-4136.	3.8	44
50	Reactivities of chars obtained as residues in selected coal conversion processes. Fuel Processing Technology, 1984, 8, 149-154.	7.2	41
51	Gasification reactivity of Chilean coals. Fuel, 1986, 65, 292-294.	6.4	40
52	Effects of boron doping in low- and high-surface-area carbon powders. Carbon, 2004, 42, 2233-2244.	10.3	40
53	Torrefaction of Pinus radiata and Eucalyptus globulus: A combined experimental and modeling approach to process synthesis. Energy for Sustainable Development, 2015, 29, 13-23.	4.5	39
54	On the oxidation resistance of carbon-carbon composites: Importance of fiber structure for composite reactivity. Carbon, 1995, 33, 545-554.	10.3	37

#	Article	IF	Citations
55	An update on the mechanism of the grapheneâ€“NO reaction. Carbon, 2015, 86, 58-68.	10.3	37
56	Kinetics of oxygen transfer reactions on the graphene surface: Part I. NO vs. O2. Carbon, 2016, 99, 472-484.	10.3	36
57	On the structural and reactivity differences between biomass- and coal-derived chars. Carbon, 2016, 109, 253-263.	10.3	35
58	Microcalorimetric Study of the Influence of Surface Chemistry on the Adsorption of Water by High Surface Area Carbons. Journal of Physical Chemistry B, 2000, 104, 8170-8176.	2.6	34
59	On the gasification reactivity of Italian Sulcis coal. Fuel, 1991, 70, 1027-1030.	6.4	33
60	Graphene functionalization: Mechanism of carboxyl group formation. Carbon, 2018, 130, 340-349.	10.3	30
61	On the oxidation resistance of carbon-carbon composites obtained by chemical vapor infiltration of different carbon cloths. Carbon, 1992, 30, 365-374.	10.3	29
62	Structural importance of Stoneâ€“Throwerâ€“Wales defects in rolled and flat graphenes from surface-enhanced Raman scattering. Carbon, 2012, 50, 3274-3279.	10.3	29
63	Computer Design and Analysis of Operation of a Multiple-Effect Evaporator System in the Sugar Industry. Industrial & Engineering Chemistry Process Design and Development, 1979, 18, 318-323.	0.6	27
64	Preferential distribution and oxidation inhibiting/catalytic effects of boron in carbon fiber reinforced carbon (CFRC) composites. Carbon, 2003, 41, 2591-2600.	10.3	27
65	Pyrolyzed phthalocyanines as surrogate carbon catalysts: Initial insights into oxygen-transfer mechanisms. Fuel, 2012, 99, 106-117.	6.4	27
66	Impact of Pretreatments on the Selectivity of Carbon for NOx Adsorption/Reduction. Energy & Fuels, 1999, 13, 903-906.	5.1	26
67	Microcalorimetric study of the absorption of hydrogen by palladium powders and carbon-supported palladium particles. Langmuir, 1993, 9, 984-992.	3.5	24
68	Monte Carlo simulation of carbon gasification using molecular orbital theory. AIChE Journal, 1996, 42, 2303-2307.	3.6	24
69	Catalysis: An old but new challenge for graphene-based materials. Chinese Journal of Catalysis, 2014, 35, 792-797.	14.0	24
70	Simulation of carbon gasification kinetics using an edge recession model. AIChE Journal, 1993, 39, 1178-1185.	3.6	22
71	Sulfur tolerance of methanol synthesis catalysts: Modelling of catalyst deactivation. Applied Catalysis, 1987, 29, 1-20.	0.8	21
72	Physicochemical characterization of carbon-coated alumina. Journal of Colloid and Interface Science, 1992, 148, 1-13.	9.4	21

#	Article	IF	Citations
73	Thermodynamic predictions of performance of a bagasse integrated gasification combined cycle under quasi-equilibrium conditions. Chemical Engineering Journal, 2014, 258, 402-411.	12.7	21
74	Effects of the substrate on deposit structure and reactivity in the chemical vapor deposition of carbon. Carbon, 1998, 36, 1623-1632.	10.3	16
75	On the oxidation resistance of C/C composites obtained by liquid-phase impregnation/ carbonization of different carbon cloths. Carbon, 1993, 31, 789-799.	10.3	15
76	Preparation and characterization of inexpensive heterogeneous catalysts for air pollution control: Two case studies. Catalysis Today, 2007, 123, 208-217.	4.4	15
77	On the active sites for the oxygen reduction reaction catalyzed by graphene-based materials. Carbon, 2020, 156, 389-398.	10.3	15
78	On the potassium-catalysed gasification of a Chilean bituminous coal. Fuel, 1990, 69, 789-791.	6.4	14
79	On the adsorption affinity coefficient of carbon dioxide in microporous carbons. Carbon, 2004, 42, 1867-1871.	10.3	14
80	Hydrogen transfer and quinone/hydroquinone transitions in graphene-based materials. Carbon, 2018, 126, 443-451.	10.3	14
81	Kinetics of oxygen transfer reactions on the graphene surface. Part II. H2O vs. CO2. Carbon, 2020, 164, 85-99.	10.3	14
82	Use of transient kinetics and temperature-programmed desorption to predict carbon/char reactivity: the case of copper-catalyzed gasification of coal char in oxygen. Energy & Fuels, 1992, 6, 865-867.	5.1	11
83	On the methane adsorption capacity of activated carbons: in search of a correlation with adsorbent properties. Journal of Chemical Technology and Biotechnology, 2009, 84, 1736-1741.	3.2	10
84	New insights into oxygen surface coverage and the resulting two-component structure of graphene oxide. Carbon, 2020, 158, 406-417.	10.3	10
85	Importance of carbon active sites in coal char gasificationâ€"8 years later. Carbon, 1991, 29, 809-811.	10.3	9
86	Comparative study of maleated polypropylene as a coupling agent for recycled lowâ€density polyethylene/wood flour composites. Journal of Applied Polymer Science, 2011, 122, 1731-1741.	2.6	9
87	Probing the â€˜elephantâ€™: On the essential difference between graphenes and polycyclic aromatic hydrocarbons. Carbon, 2021, 171, 798-805.	10.3	9
88	The role of calcium in high pH excursions for reactivated GAC. Carbon, 2005, 43, 511-518.	10.3	8
89	Spin density distributions on graphene clusters and ribbons with carbene-like active sites. Physical Chemistry Chemical Physics, 2018, 20, 26968-26978.	2.8	7
90	On Tailoring the Surface Chemistry of Activated Carbons for Their Use in Purification of Aqueous Effluents. Kluwer International Series in Engineering and Computer Science, 1996, , 749-756.	0.2	7

#	Article	IF	Citations
91	Diamond Synthesized at Low Pressure. Chemistry and Physics of Carbon: A Series of Advances, 2004, , 71-207.	0.3	4
92	No reduction by activated carbons. some mechanistic aspects of uncatalyzed and catalyzed reaction. Coal Science and Technology, 1995, 24, 1799-1802.	0.0	3
93	A commentary on â€œEffect of metal additives on the physicoâ€"chemical characteristics of activated carbon exemplified by benzene and acetic acid adsorptionâ€. Carbon, 2001, 39, 951-953.	10.3	3
94	METHANE DRY REFORMING OVER Ni SUPPORTED ON PINE SAWDUST ACTIVATED CARBON: EFFECTS OF SUPPORT SURFACE PROPERTIES AND METAL LOADING. Quimica Nova, 2015, , .	0.3	2
95	IRC data for a mechanistic route starting with H2O adsorption and finishing with H2 desorption from graphene. Data in Brief, 2020, 30, 105362.	1.0	2
96	Residual woody biomass torrefaction: challenges and opportunities for the waste management sector. Waste Management and Research, 2011, 29, 1233-1234.	3.9	1
97	Inhibition Effect of Coexisting Gas on CO2 Gasification of Ca-Loaded Coal Char.. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 1994, 73, 1005-1012.	0.2	1
98	Enhancement of micropore filling of water on carbon black by platinum loading. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 173, 113-116.	3.5	0
99	Science and Mexico are the losers in institute politics. Nature, 2010, 464, 160-160.	27.8	0
100	19. Importance of edge atoms. , 2014, , 503-526.		0
101	ON THE FEASIBILITY OF CO₂ SEQUESTRATION IN COAL MINES: COMPARISON OF HEATS OF ADSORPTION OF CO₂ AND CH₄. , 2000, , .		0
102	(Invited) On the Active Sites in the Graphene-Catalyzed Oxygen Reduction Reaction. ECS Meeting Abstracts, 2019, , .	0.0	0
103	A DFT Study of the VRFB Positive Electrode: Carbon Active Sites for the VO₂⁺/VO²⁺ Reaction. ECS Meeting Abstracts, 2022, MA2022-01, 2008-2008.	0.0	0