Cristian Contescu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98 papers	3,241 citations	31 h-index	55 g-index
113 ext. papers	3,627 ext. citations	7.6 avg, IF	5.09 L-index

#	Paper	IF	Citations
98	Effect of microstructure and temperature on nuclear graphite oxidation using the 3D Random Pore Model. *Carbon*, **2022**, 191, 132-145	10.4	1
97	Summary of US DOE R&D Activities on Graphite Oxidation (2006 2021) **2021**,		2
96	Understanding the local structure of disordered carbons from cellulose and lignin. *Wood Science and Technology*, **2021**, 55, 587-606	2.5	6
95	Probing basal planes and edge sites in polygranular nuclear graphite by gas adsorption: Estimation of active surface area. *Carbon*, **2021**, 179, 633-645	10.4	1
94	Progress Report on Graphite-Salt Intrusion Studies **2020**,		3
93	Protection of graphite from salt and gas permeation in molten salt reactors. *Journal of Nuclear Materials*, **2020**, 534, 152119	3.3	6
92	Visualization of supercritical water pseudo-boiling at Widom line crossover. *Nature Communications* , **2019**, 10, 4114	17.4	39
91	Characterization of the Irradiation Effects in Nuclear Graphite. *Minerals, Metals and Materials Series*, **2019**, 901-906	0.3	
90	Molten salt reactor waste and effluent management strategies: A review. *Nuclear Engineering and Design*, **2019**, 345, 94-109	1.8	32
89	Chemical compatibility of silicon carbide in molten fluoride salts for the fluoride salt-cooled high temperature reactor. *Journal of Nuclear Materials*, **2019**, 524, 119-134	3.3	9
88	Modeling the effects of oxidation-induced porosity on the elastic moduli of nuclear graphites. *Carbon*, **2019**, 141, 304-315	10.4	11
87	Development of mesopores in superfine grain graphite neutron-irradiated at high fluence. *Carbon*, **2019**, 141, 663-675	10.4	14
86	Effective gaseous diffusion coefficients of select ultra-fine, super-fine and medium grain nuclear graphite. *Carbon*, **2018**, 136, 369-379	10.4	15
85	Lignin-Derived Carbon Fibers as Efficient Heterogeneous Solid Acid Catalysts for Esterification of Oleic Acid. *MRS Advances*, **2018**, 3, 2865-2873	0.7	5
84	Beyond the classical kinetic model for chronic graphite oxidation by moisture in high temperature gas-cooled reactors. *Carbon*, **2018**, 127, 158-169	10.4	13
83	Nitrogen adsorption data, FIB-SEM tomography and TEM micrographs of neutron-irradiated superfine grain graphite. *Data in Brief*, **2018**, 21, 2643-2650	1.2	3
82	Activated Carbons Derived from High-Temperature Pyrolysis of Lignocellulosic Biomass. *Journal of Carbon Research*, **2018**, 4, 51	3.3	49

81	Theory and application of laser ultrasonic shear wave birefringence measurements to the determination of microstructure orientation in transversely isotropic, polycrystalline graphite materials. *Carbon*, **2017**, 115, 460-470	10.4	2
80	Properties of immobile hydrogen confined in microporous carbon. *Carbon*, **2017**, 117, 383-392	10.4	11
79	Tritium Control and Capture in Salt-Cooled Fission and Fusion Reactors: Status, Challenges, and Path Forward. *Nuclear Technology*, **2017**, 197, 119-139	1.4	58
78	Clustering of water molecules in ultramicroporous carbon: In-situ small-angle neutron scattering. *Carbon*, **2017**, 111, 681-688	10.4	34
77	Phase Transition of H in Subnanometer Pores Observed at 75 K. *ACS Nano*, **2017**, 11, 11617-11631	16.7	4
76	Oxidation Behavior of Matrix Graphite and Its Effect on Compressive Strength. *Science and Technology of Nuclear Installations*, **2017**, 2017, 1-6	0.6	7
75	Understanding the reaction of nuclear graphite with molecular oxygen: Kinetics, transport, and structural evolution. *Journal of Nuclear Materials*, **2017**, 493, 343-367	3.3	35
74	Hydration level dependence of the microscopic dynamics of water adsorbed in ultramicroporous carbon. *Carbon*, **2017**, 111, 705-712	10.4	15
73	Activated carbon fibers for gas storage? **2017**, 305-335		1
72	Thermophysical property and pore structure evolution in stressed and non-stressed neutron irradiated IG-110 nuclear graphite. *Journal of Nuclear Materials*, **2016**, 476, 102-109	3.3	8
71	Laser ultrasonic assessment of the effects of porosity and microcracking on the elastic moduli of nuclear graphites. *Journal of Nuclear Materials*, **2016**, 471, 80-91	3.3	12
70	Ultralight carbon aerogel from nanocellulose as a highly selective oil absorption material. *Cellulose*, **2015**, 22, 435-447	5.5	139
69	SANS investigations of CO2 adsorption in microporous carbon. *Carbon*, **2015**, 95, 535-544	10.4	28
68	Crown ethers in graphene. *Nature Communications*, **2014**, 5, 5389	17.4	102
67	Investigation of morphology and hydrogen adsorption capacity of disordered carbons. *Carbon*, **2014**, 80, 82-90	10.4	28
66	Microstructure-Dependent Gas Adsorption: Accurate Predictions of Methane Uptake in Nanoporous Carbons. *Journal of Chemical Theory and Computation*, **2014**, 10, 1-4	6.4	21
65	Advanced surface and microstructural characterization of natural graphite anodes for lithium ion batteries. *Carbon*, **2014**, 72, 393-401	10.4	39
64	Chemical kinetics parameters and model validation for the gasification of PCEA nuclear graphite. *Journal of Nuclear Materials*, **2014**, 444, 112-128	3.3	9

63	Oxidation of PCEA nuclear graphite by low water concentrations in helium. *Journal of Nuclear Materials*, **2014**, 453, 225-232	3.3	20
62	Modern approaches to studying gas adsorption in nanoporous carbons. *Journal of Materials Chemistry A*, **2013**, 1, 9341	13	37
61	Isotope effect on adsorbed quantum phases: diffusion of H2 and D2 in nanoporous carbon. *Physical Review Letters*, **2013**, 110, 236102	7.4	26
60	Bimodal mesoporous carbon synthesized from large organic precursor and amphiphilic tri-block copolymer by self-assembly. *Microporous and Mesoporous Materials*, **2012**, 155, 71-74	5.3	11
59	Effect of potassium-doping on the microstructure development in polyfurfuryl alcohol derived activated carbon. *Carbon*, **2012**, 50, 5278-5285	10.4	6
58	Nanoporous Carbon: Topological Defects: Origin of Nanopores and Enhanced Adsorption Performance in Nanoporous Carbon (Small 21/2012). *Small*, **2012**, 8, 3282-3282	11	3
57	Local Atomic Density of Microporous Carbons. *Journal of Physical Chemistry C*, **2012**, 116, 2946-2951	3.8	19
56	Tetrahydrofuran-induced K and Li doping onto poly(furfuryl alcohol)-derived activated carbon (PFAC): influence on microstructure and H2 sorption properties. *Langmuir*, **2012**, 28, 5669-77	4	6
55	Topological defects: origin of nanopores and enhanced adsorption performance in nanoporous carbon. *Small*, **2012**, 8, 3283-8	11	113
54	Thermal treatment effects on charge storage performance of graphene-based materials for supercapacitors. *ACS Applied Materials & Interfaces*, **2012**, 4, 3239-46	9.5	47
53	Pore structure development in oxidized IG-110 nuclear graphite. *Journal of Nuclear Materials*, **2012**, 430, 229-238	3.3	39
52	Restricted dynamics of molecular hydrogen confined in activated carbon nanopores. *Carbon*, **2012**, 50, 1071-1082	10.4	21
51	The effect of microstructure on air oxidation resistance of nuclear graphite. *Carbon*, **2012**, 50, 3354-3366	10.4	65
50	Monitoring phase behavior of hydrogen confined in carbon nanopores by in-situ Small Angle Neutron Scattering technique. *Materials Research Society Symposia Proceedings*, **2012**, 1440, 49		
49	Using a New Finite Slit Pore Model for NLDFT Analysis of Carbon Pore Structure. *Adsorption Science and Technology*, **2011**, 29, 769-780	3.6	22
48	Hydrogen confinement in carbon nanopores: extreme densification at ambient temperature. *Journal of the American Chemical Society*, **2011**, 133, 13794-7	16.4	48
47	STEM imaging of single Pd atoms in activated carbon fibers considered for hydrogen storage. *Carbon*, **2011**, 49, 4059-4063	10.4	24
46	Single Pd atoms in activated carbon fibers and their contribution to hydrogen storage. *Carbon*, **2011**, 49, 4050-4058	10.4	65

45	Experimental Evidence of Super Densification of Adsorbed Hydrogen by in-situ Small Angle Neutron Scattering (SANS). *Materials Research Society Symposia Proceedings*, **2011**, 1334, 31301		1
44	Atypical hydrogen uptake on chemically-activated, ultramicroporous carbon. *Carbon*, **2010**, 48, 1331-1340	10.4	60
43	Kinetic effect of Pd additions on the hydrogen uptake of chemically-activated ultramicroporous carbon. *Carbon*, **2010**, 48, 2361-2364	10.4	62
42	Effect of Air Oxidation on Pore Structure Development and Mechanical Properties of Nuclear Graphite **2010**,		2
41	Density Change of an Oxidized Nuclear Graphite by Acoustic Microscopy and Image Processing. *Journal of Engineering for Gas Turbines and Power*, **2009**, 131,	1.7	4
40	The role of destabilization of palladium hydride in the hydrogen uptake of Pd-containing activated carbons. *Nanotechnology*, **2009**, 20, 204011	3.4	33
39	Penetration depth and transient oxidation of graphite by oxygen and water vapor. *Journal of Nuclear Materials*, **2009**, 393, 518-521	3.3	22
38	Detection of Hydrogen Spillover in Palladium-Modified Activated Carbon Fibers during Hydrogen Adsorption. *Journal of Physical Chemistry C*, **2009**, 113, 5886-5890	3.8	137
37	Atomic Resolution Investigation of Metal-Assisted Hydrogen Storage Mechanisms in Activated Carbon Fibers. *Microscopy and Microanalysis*, **2009**, 15, 1426-1427	0.5	
36	Selection of water-dispersible carbon black for fabrication of uranium oxicarbide microspheres. *Journal of Nuclear Materials*, **2008**, 375, 38-51	3.3	14
35	Practical aspects for characterizing air oxidation of graphite. *Journal of Nuclear Materials*, **2008**, 381, 15-24	3.3	61
34	The effect of processing conditions on microstructure of Pd-containing activated carbon fibers. *Carbon*, **2008**, 46, 54-61	10.4	18
33	In situ high pressure XRD study on hydrogen uptake behavior of Pd-carbon systems. *Materials Research Society Symposia Proceedings*, **2007**, 1042, 1		
32	Water transport in a non-aqueous, polypyrrole electrochemical cell. *Sensors and Actuators B: Chemical*, **2006**, 114, 248-253	8.5	3
31	Acid buffering capacity of basic carbons revealed by their continuous pK distribution. *Carbon*, **1998**, 36, 247-258	10.4	91
30	Surface acidity of carbons characterized by their continuous pK distribution and Boehm titration. *Carbon*, **1997**, 35, 83-94	10.4	148
29	The Use of Proton Affinity Distributions for the Characterization of Active Sites of Alumina-Supported CoMo Catalysts. *Journal of Catalysis*, **1996**, 158, 411-419	7.3	13
28	Catalyst Preparation Variables That Affect the Creation of Active Sites for HDS on Co/Mo/Al2O3Catalytic Materials. *Journal of Catalysis*, **1996**, 162, 66-75	7.3	30

27	Heterogeneity of Hydroxyl and Deuteroxyl Groups on the Surface of TiO2Polymorphs. *Journal of Colloid and Interface Science*, **1996**, 180, 149-161	9.3	61
26	Br□sted-type relationship for surface active sites on solid acid catalysts: 1-butene isomerization on TiO2?SiO2, ZrO2?SiO2, and Al2O3?SiO2 mixed oxide catalysts. *The Chemical Engineering Journal and the Biochemical Engineering Journal*, **1996**, 64, 265-272		3
25	Determination of dissociation constants of weak acids by deconvolution of proton binding isotherms derived from potentiometric data. *Journal of Solution Chemistry*, **1996**, 25, 877-894	1.8	7
24	Methods for Preparation of Catalytic Materials. *Chemical Reviews*, **1995**, 95, 477-510	68.1	465
23	Proton Affinity Distributions of TiO2-SiO2 and ZrO2-SiO2 Mixed Oxides and Their Relationship to Catalyst Activities for 1-Butene Isomerization. *Journal of Catalysis*, **1995**, 157, 244-258	7.3	49
22	Proton affinity distributions: A scientific basis for the design and construction of supported metal catalysts. *Studies in Surface Science and Catalysis*, **1995**, 91, 237-252	1.8	6
21	Thermal Induced Evolution of Chlorine-Containing Precursors in Impregnated Pd/Al2O3 Catalysts. *Langmuir*, **1995**, 11, 2031-2040	4	20
20	Kinetic method for the characterization of Br□sted sites on oxide surfaces. Part I. Trimethylorthobenzoate hydrolysis over a series of Al2O3SiO2 mixed oxides. *Journal of Molecular Catalysis A*, **1995**, 102, 175-191		3
19	Thermodynamics of Proton Binding at the Alumina/Aqueous Solution Interface. A Phenomenological Approach. *The Journal of Physical Chemistry*, **1994**, 98, 4327-4335		37
18	The Influence of Electropositive and Electronegative Elements on Proton Binding to Gamma Al2O3 in Aqueous Suspensions. *Journal of Colloid and Interface Science*, **1994**, 165, 66-71	9.3	8
17	Another view of the surface properties of high surface area □-alumina. *Applied Catalysis A: General*, **1994**, 118, L5-L10	5.1	10
16	Temperature-programmed reduction and oxidation of nickel supported on WO3□Al2O3 composite oxides. *Journal of the Chemical Society, Faraday Transactions*, **1993**, 89, 2075-2083		21
15	1-pK multisites description of charge development at the aqueous alumina interface. Adsorption of PdII□mine complexes. *Journal of the Chemical Society, Faraday Transactions*, **1993**, 89, 4091-4099		18
14	Heterogeneity of proton binding sites at the oxide/solution interface. *Langmuir*, **1993**, 9, 1754-1765	4	148
13	Chemistry of surface tungsten species on tungsten trioxide/alumina composite oxides under aqueous conditions. *The Journal of Physical Chemistry*, **1993**, 97, 10152-10157		18
12	Characterization of the surfaces of activated carbons in terms of their acidity constant distributions. *Carbon*, **1993**, 31, 1193-1202	10.4	169
11	Impregnation of alumina with palladium tetrahalide anionic complexes. *Reaction Kinetics and Catalysis Letters*, **1991**, 43, 393-398		2
10	Influence of some organic acids on the adsorption of PdX 2□ complexes on alumina. *Reaction Kinetics and Catalysis Letters*, **1991**, 43, 399-404		

9	Surface area determination of supported oxides: WO3/Al2O3. *Journal of Catalysis*, **1991**, 129, 195-201	7.3	17
8	Effect of calcination temperature of alumina on the adsorption/impregnation of Pd(II) compounds. *Journal of Catalysis*, **1991**, 132, 422-431	7.3	23
7	A study of the acidic properties of pure and composite oxides by inverse gas chromatography at infinite dilution. *Journal of Catalysis*, **1991**, 131, 433-444	7.3	10
6	Effect of alumina supports on the properties of supported nickel catalysts. *Applied Catalysis*, **1991**, 73, 289-312		44
5	Selective ion exchange of palladium on alumina-silica composite oxides. *Applied Catalysis*, **1991**, 74, 95-108		14
4	The effect of pH on the adsorption of palladium (II) complexes on alumina. *Applied Catalysis*, **1987**, 33, 259-271		44
3	Field emission microscopy study of silver adsorption on tungsten single-crystal planes. *Thin Solid Films*, **1982**, 97, 245-257	2.2	2
2	Note on Graphite Oxidation by Oxygen and Moisture		2
1	Characterization of Porosity Development in Oxidized Graphite using Automated Image Analysis Techniques		2