Osvalda Senneca

List of Publications by Year
in descending order

75	2,441	172207	205818
papers	citations	29 h-index	48 g-index

77	77	77	2059
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kinetics of pyrolysis, combustion and gasification of three biomass fuels. Fuel Processing Technology, 2007, 88, 87-97.	3.7	311
2	Microstructural changes and loss of gasification reactivity of chars upon heat treatment. Fuel, 1998, 77, 1483-1493.	3.4	110
3	The relevance of thermal annealing to the evolution of coal char gasification reactivity. Carbon, 1997, 35, 141-151.	5.4	105
4	A fast heating-rate thermogravimetric study of the pyrolysis of scrap tyres. Fuel, 1999, 78, 1575-1581.	3.4	103
5	Probing the chemical nature of surface oxides during coal char oxidation by high-resolution XPS. Carbon, 2015, 90, 181-196.	5.4	88
6	A Thermogravimetric Study of Nonfossil Solid Fuels. 2. Oxidative Pyrolysis and Char Combustion. Energy & Fuels, 2002, 16, 661-668.	2.5	83
7	Gasification of a coal char by oxygen and carbon dioxide. Carbon, 1998, 36, 443-452.	5.4	75
8	Oxidative pyrolysis of solid fuels. Journal of Analytical and Applied Pyrolysis, 2004, 71, 959-970.	2.6	73
9	Effects of oxy-fuel conditions on the products of pyrolysis in a drop tube reactor. Fuel Processing Technology, 2016, 150, 41-49.	3.7	72
10	A semidetailed model of primary fragmentation of coal. Fuel, 2013, 104, 253-261.	3.4	68
11	An experimental study of fragmentation of coals during fast pyrolysis at high temperature and pressure. Fuel, 2011, 90, 2931-2938.	3.4	65
12	Diagnostics of carbon gasification by raman microprobe spectroscopy. Proceedings of the Combustion Institute, 2000, 28, 2369-2374.	2.4	59
13	Assessment of Thermodeactivation during Gasification of a Bituminous Coal Char. Energy & Fuels, 1999, 13, 1154-1159.	2.5	55
14	Relevance of structure, fragmentation and reactivity of coal to combustion and oxy-combustion. Fuel, 2017, 201, 65-80.	3.4	51
15	Thermal treatment of lignin, cellulose and hemicellulose in nitrogen and carbon dioxide. Fuel, 2020, 271, 117656.	3.4	51
16	Evolution of Reactivity of Highly Porous Chars from Raman Microscopy. Combustion Science and Technology, 2000, 153, 65-82.	1.2	49
17	Patterns and kinetics of pyrolysis of tobacco under inert and oxidative conditions. Journal of Analytical and Applied Pyrolysis, 2007, 79, 227-233.	2.6	48
18	Characterisation of meat and bone mill for coal co-firing. Fuel, 2008, 87, 3262-3270.	3.4	40

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19	The influence of char surface oxidation on thermal annealing and loss of combustion reactivity. Proceedings of the Combustion Institute, 2005, 30, 2223-2230.	2.4	39
20	Composition of the gaseous products of pyrolysis of tobacco under inert and oxidative conditions. Journal of Analytical and Applied Pyrolysis, 2007, 79, 234-243.	2.6	39
21	The influence of thermal annealing on oxygen uptake and combustion rates of a bituminous coal char. Proceedings of the Combustion Institute, 2007, 31, 1889-1895.	2.4	37
22	Separation and characterization of carbonaceous particulate (soot and char) produced from fast pyrolysis of coal in inert and CO 2 atmospheres. Fuel, 2017, 201, 118-123.	3.4	37
23	Slow pyrolysis of walnut shells in nitrogen and carbon dioxide. Fuel, 2018, 225, 419-425.	3.4	37
24	Kinetics of coal oxy-combustion by means of different experimental techniques. Fuel, 2012, 102, 751-759.	3.4	36
25	A Thermogravimetric Study of Nonfossil Solid Fuels. 1. Inert Pyrolysis. Energy & Fuels, 2002, 16, 653-660.	2.5	34
26	Effects of CO2 on submicronic carbon particulate (soot) formed during coal pyrolysis in a drop tube reactor. Combustion and Flame, 2016, 172, 302-308.	2.8	34
27	Thermal degradation of pesticides under oxidative conditions. Journal of Analytical and Applied Pyrolysis, 2007, 80, 61-76.	2.6	32
28	Loss of gasification reactivity toward O2 and CO2 upon heat treatment of carbons. Proceedings of the Combustion Institute, 2002, 29, 485-493.	2.4	31
29	Thermal annealing of coal at high temperature and high pressure. Effects on fragmentation and on rate of combustion, gasification and oxy-combustion. Fuel, 2014, 116, 221-228.	3.4	30
30	Burning and physico-chemical characteristics of carbon in ash from a coal fired power plant. Fuel, 2008, 87, 1207-1216.	3.4	29
31	Prediction of structure evolution and fragmentation phenomena during combustion of coal: Effects of heating rate. Fuel Processing Technology, 2017, 166, 228-236.	3.7	29
32	Assessment of combustion rates of coal chars for oxy-combustion applications. Fuel, 2019, 238, 173-185.	3.4	28
33	Mechanisms affecting the delayed efficiency of cement based stabilization/solidification processes. Journal of Cleaner Production, 2020, 261, 121230.	4.6	28
34	A semi-detailed kinetic model of char combustion with consideration of thermal annealing. Proceedings of the Combustion Institute, 2011, 33, 1763-1770.	2.4	27
35	Comparison of pyrolysis test rigs for oxy-fuel conditions. Fuel Processing Technology, 2017, 156, 461-472.	3.7	26
36	Pyrolysis and Thermal Annealing of Coal and Biomass in CO₂-Rich Atmospheres. Energy & Fuels, 2018, 32, 10701-10708.	2.5	25

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37	Set up of an experimental apparatus for the study of fragmentation of solid fuels upon severe heating. Experimental Thermal and Fluid Science, 2010, 34, 366-372.	1.5	23
38	Overlapping of heterogeneous and purely thermally activated solid-state processes in the combustion of a bituminous coal. Combustion and Flame, 2006, 144, 578-591.	2.8	22
39	Modelling oxy-pyrolysis of sewage sludge in a rotary kiln reactor. Fuel, 2018, 231, 468-478.	3.4	19
40	Comparison of Primary Volatiles from Coal and Biomass Pyrolysis in N₂ and CO₂. Energy & Fuels, 2019, 33, 12822-12829.	2.5	19
41	Insights on the role of primary and secondary tar reactions in soot inception during fast pyrolysis of coal. Fuel, 2020, 275, 117957.	3.4	19
42	Mechanochemical activation of high-carbon fly ash for enhanced carbon reburning. Proceedings of the Combustion Institute, 2011, 33, 2743-2753.	2.4	18
43	Effects of pressure on lignocellulosic biomass fast pyrolysis in nitrogen and carbon dioxide. Fuel, 2021, 287, 119604.	3.4	18
44	Effects of CO2 enriched atmosphere on chars from walnut shells pyrolysis in a drop tube reactor. Fuel, 2018, 229, 235-240.	3.4	17
45	Heat treatment-induced loss of combustion reactivity of a coal char: the effect of exposure to oxygen. Experimental Thermal and Fluid Science, 2004, 28, 735-741.	1.5	14
46	Assessment of the thermochemistry of oxygen chemisorption and surface oxide desorption during looping combustion of coal char. Proceedings of the Combustion Institute, 2013, 34, 2787-2793.	2.4	14
47	Oxidation of Carbon: What We Know and What We Still Need to Know. Energy Procedia, 2017, 120, 62-74.	1.8	14
48	Looping cycles for low carbon technologies: A survey of recent research activities in Naples. Fuel, 2020, 268, 117371.	3.4	12
49	Pyrolysis and combustion of a solid refinery waste. Fuel, 2020, 267, 117258.	3.4	12
50	The influence of heat treatment and weathering on the gasification reactivity of Montana lignite. Proceedings of the Combustion Institute, 1998, 27, 2991-2999.	0.3	11
51	Mechanism and Thermochemistry of Coal Char Oxidation and Desorption of Surface Oxides. Energy & Fuels, 2017, 31, 2308-2316.	2.5	11
52	Pyrolysis, Combustion, and Fragmentation Model of Coal Particles: Preliminary Results. Combustion Science and Technology, 2016, 188, 759-768.	1.2	10
53	Extension of the Thermal Annealing Concepts Developed for Coal Combustion to Conversion of Lignocellulosic Biomass. Energy & Fuels, 2020, 34, 3661-3670.	2.5	10
54	High temperature pyrolysis of lignite and synthetic carbons. Fuel, 2019, 241, 264-272.	3.4	8

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55	Fragmentation of pulverized coal in a laminar drop tube reactor: Experiments and model. Proceedings of the Combustion Institute, 2019, 37, 2849-2855.	2.4	8
56	The influence of temperature on the nature and stability of surface-oxides formed by oxidation of char. Renewable and Sustainable Energy Reviews, 2021, 137, 110595.	8.2	8
57	On the agglomeration tendency of carbonaceous fuels in fluidized beds. Fuel, 2020, 277, 118187.	3.4	7
58	Preliminary Assessment of a Concept of Looping Combustion of Carbon. Industrial & Engineering Chemistry Research, 2009, 48, 102-109.	1.8	6
59	Fragmentation of biomass-templated CaO-based pellets. Fuel, 2017, 187, 388-397.	3.4	6
60	Catalytic effects for cellulose-based model fuels under low and high heating rate in air and oxy-fuel atmosphere. Fuel, 2022, 324, 124437.	3.4	6
61	Development of a dry bottom ash extraction/afterburning system from pulverized fuel co-fired utility boilers. Proceedings of the Combustion Institute, 2013, 34, 2855-2863.	2.4	5
62	Review of Carbonaceous Annealing Effects on O₂ and CO₂ Coal Reactivity. Energy & Fuels, 2019, 33, 10415-10434.	2.5	5
63	Characterization of surface-oxides on char under periodically changing oxidation/desorption conditions. Renewable and Sustainable Energy Reviews, 2021, 137, 110453.	8.2	5
64	Beneficiation of coal fly ashes by oxygen chemisorption. Experimental Thermal and Fluid Science, 2012, 43, 76-81.	1.5	4
65	Round robin test on enthalpies of redox materials for thermochemical heat storage: Perovskites. AIP Conference Proceedings, 2019, , .	0.3	4
66	Effect of O2/CO2 atmospheres on coal fragmentation. Fuel, 2020, 267, 117145.	3.4	4
67	Smoldering Combustion in Cigarette Smoking and Generation of Combustion Byproducts. Environmental Engineering Science, 2008, 25, 1389-1398.	0.8	3
68	Assessment of coal pyrolysis kinetics for Barracuda or Ansys Fluent. Energy Procedia, 2019, 158, 1999-2004.	1.8	3
69	Lumped Kinetics for Homogeneous Reactions of n-Hexadecane and n-Decene as Model Compounds for PE Pyrolysis Primary Tars. Energies, 2020, 13, 5466.	1.6	3
70	Application of the Carbon Looping (CarboLoop) Concept in a Novel Twin-Bed Reactor. Energy Procedia, 2017, 120, 447-453.	1.8	1
71	On how mild oxidation affects the structure of carbons: Comparative analysis by different techniques. Applications in Energy and Combustion Science, 2020, 1-4, 100006.	0.9	1
72	Analytics for Recovery and Reuse of Solid Wastes from Refineries. Energies, 2022, 15, 4026.	1.6	1

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73	Reply to the letter â€˜Kinetics of decomposition measured using thermobalanceâ€™ by Juan A. Conesa. Fuel, 2001, 80, 2125.	3.4	0
74	Characterization of Biomass as Non Conventional Fuels by Thermal Techniques. , 2011, , .		0
75	Set up of an experimental protocol for the investigation of graphite combustion in supersonic flow. Experimental Thermal and Fluid Science, 2014, 56, 9-15.	1.5	0