Marco J Castaldi

List of Publications by Year
in descending order

89	3,966	126858	123376
papers	citations	33 h-index	61 g-index

91	91	91	3903
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Aromatic and Polycyclic Aromatic Hydrocarbon Formation in a Laminar Premixed n-Butane Flame. Combustion and Flame, 1998, 114, 192-213.	2.8	511
2	Rich-Catalytic Lean-Burn Combustion for Low-Single-Digit NOx Gas Turbines. Journal of Engineering for Gas Turbines and Power, 2005, 127, 27-35.	0.5	277
3	Aromatic and Polycyclic Aromatic Hydrocarbon Formation in a Premixed Propane Flame. Combustion Science and Technology, 1997, 128, 295-342.	1.2	160
4	CO₂ as a Carbon Neutral Fuel Source via Enhanced Biomass Gasification. Environmental Science & Technology, 2009, 43, 9030-9037.	4.6	149
5	Catalyst Properties and Catalytic Performance of Char from Biomass Gasification. Industrial & Engineering Chemistry Research, 2012, 51, 13113-13122.	1.8	117
6	Influence of char composition and inorganics on catalytic activity of char from biomass gasification. Fuel, 2015, 157, 37-47.	3.4	115
7	Fundamental Understanding of the Thermal Degradation Mechanisms of Waste Tires and Their Air Pollutant Generation in a N₂ Atmosphere. Environmental Science & Technology, 2009, 43, 5996-6002.	4.6	106
8	High-Temperature Corrosion in Waste-to-Energy Boilers. Journal of Thermal Spray Technology, 2007, 16, 104-110.	1.6	104
9	Investigation of Mechanisms of Polycyclic Aromatic Hydrocarbons (PAHs) Initiated from the Thermal Degradation of Styrene Butadiene Rubber (SBR) in N₂ Atmosphere. Environmental Science & Technology, 2008, 42, 2175-2180.	4.6	102
10	The impact of urea on the performance of metal exchanged zeolites for the selective catalytic reduction of NOxPart I. Pyrolysis and hydrolysis of urea over zeolite catalysts. Applied Catalysis B: Environmental, 2010, 97, 90-97.	10.8	100
11	Down-hole combustion method for gas production from methane hydrates. Journal of Petroleum Science and Engineering, 2007, 56, 176-185.	2.1	96
12	Thermal Stimulation Based Methane Production from Hydrate Bearing Quartz Sediment. Industrial & Engineering Chemistry Research, 2013, 52, 6571-6581.	1.8	90
13	Experimental Investigation of Methane Gas Production from Methane Hydrate. Industrial & Engineering Chemistry Research, 2009, 48, 3142-3149.	1.8	84
14	CO2â€“steam mixture for direct and indirect gasification of rice straw in a downdraft gasifier: Laboratory-scale experiments and performance prediction. Applied Energy, 2014, 113, 670-679.	5.1	84
15	Experiments on methane hydrates formation in seabed deposits and gas recovery adopting carbon dioxide replacement strategies. Applied Thermal Engineering, 2019, 148, 371-381.	3.0	83
16	Large scale reactor details and results for the formation and decomposition of methane hydrates via thermal stimulation dissociation. Journal of Petroleum Science and Engineering, 2012, 94-95, 19-27.	2.1	82
17	Efficiency enhancements in methane recovery from natural gas hydrates using injection of CO2/N2 gas mixture simulating in-situ combustion. Applied Energy, 2019, 236, 825-836.	5.1	82
18	Real-Time Quantitative Analysis of Combustion-Generated Polycyclic Aromatic Hydrocarbons by Resonance-Enhanced Multiphoton Ionization Time-of-Flight Mass Spectrometry. Analytical Chemistry, 1997, 69, 286-293.	3.2	72

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19	Heat Generation and Accumulation in Municipal Solid Waste Landfills. Environmental Science & Technology, 2017, 51, 12434-12442.	4.6	70
20	Dispersed Calcium Oxide as a Reversible and Efficient CO₂â^'Sorbent at Intermediate Temperatures. Industrial & Engineering Chemistry Research, 2011, 50, 4042-4049.	1.8	66
21	MICRO-STRUCTURES OF PREMIXED HYDROCARBON FLAMES: METHANE. Combustion Science and Technology, 1995, 107, 1-19.	1.2	65
22	Influence of CO₂ Injection on Biomass Gasification. Industrial & Engineering Chemistry Research, 2007, 46, 8875-8886.	1.8	65
23	Auto-thermal and dry reforming of landfill gas over a Rh/Î³Al2O3 monolith catalyst. Applied Catalysis B: Environmental, 2010, 94, 125-133.	10.8	61
24	Methane Hydrate Formation and Thermal Based Dissociation Behavior in Silica Glass Bead Porous Media. Industrial & Engineering Chemistry Research, 2014, 53, 6840-6854.	1.8	59
25	Simulation of CO2 storage and methane gas production from gas hydrates in a large scale laboratory reactor. Journal of Petroleum Science and Engineering, 2016, 147, 515-527.	2.1	58
26	Utilizing Carbon Dioxide as a Reaction Medium to Mitigate Production of Polycyclic Aromatic Hydrocarbons from the Thermal Decomposition of Styrene Butadiene Rubber. Environmental Science & Technology, 2012, 46, 10752-10757.	4.6	56
27	Mechanistic Understanding of Polycyclic Aromatic Hydrocarbons (PAHs) from the Thermal Degradation of Tires under Various Oxygen Concentration Atmospheres. Environmental Science & Technology, 2012, 46, 12921-12926.	4.6	49
28	Biogas reforming for syngas production: The effect of methyl chloride. Applied Catalysis B: Environmental, 2014, 144, 353-361.	10.8	42
29	Reactivity enhancement of gasification biochars for catalytic applications. Fuel, 2015, 159, 491-499.	3.4	40
30	The Case for Increasing the Global Capacity for Waste to Energy (WTE). Waste and Biomass Valorization, 2010, 1, 91-105.	1.8	39
31	Effect of Carbon Dioxide on the Thermal Degradation of Lignocellulosic Biomass. Environmental Science & Technology, 2013, 47, 130905080840009.	4.6	37
32	Investigation into a catalytically controlled reaction gasifier (CCRG) for coal to hydrogen. International Journal of Hydrogen Energy, 2007, 32, 4170-4179.	3.8	35
33	Synthesis and characterization of functionalized alumina catalysts with thiol and sulfonic groups and their performance in producing 5-hydroxymethylfurfural from fructose. Fuel, 2017, 198, 134-144.	3.4	35
34	The impact of urea on the performance of metal-exchanged zeolites for the selective catalytic reduction of NOxâ€"Part II. Catalytic, FTIR, and NMR studies. Applied Catalysis B: Environmental, 2010, 97, 98-107.	10.8	34
35	Progress and Prospects in the Field of Biomass and Waste to Energy and Added-Value Materials. Waste and Biomass Valorization, 2017, 8, 1875-1884.	1.8	32
36	Performance of an Internal Combustion Engine Operating on Landfill Gas and the Effect of Syngas Addition. Industrial & Engineering Chemistry Research, 2011, 50, 3570-3579.	1.8	30

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37	Operando Characterization of Catalysts through use of a Portable Microreactor. ChemCatChem, 2015, 7, 3683-3691.	1.8	29
38	An Application of the Results from the Large-Scale Thermal Stimulation Method of Methane Hydrate Dissociation to the Field Tests. Industrial & Engineering Chemistry Research, 2017, 56, 4588-4599.	1.8	29
39	Chlorine in waste-derived solid recovered fuel (SRF), co-combusted in cement kilns: A systematic review of sources, reactions, fate and implications. Critical Reviews in Environmental Science and Technology, 2021, 51, 140-186.	6.6	27
40	Biomass energy behavior study during pyrolysis process by intraparticle gas sampling. Journal of Analytical and Applied Pyrolysis, 2014, 108, 316-322.	2.6	26
41	Beneficial Use of Waste Tires: An Integrated Gasification and Combustion Process Design via Thermo-Gravimetric Analysis (TGA) of Styreneâ€“Butadiene Rubber (SBR) and Poly-Isoprene (IR). Environmental Engineering Science, 2007, 24, 1160-1178.	0.8	25
42	Valorization of Wastes from the Food Production Industry: A Review Towards an Integrated Agri-Food Processing Biorefinery. Waste and Biomass Valorization, 2022, 13, 31-50.	1.8	25
43	Syngas Production via CO2 Enhanced Gasification of Biomass Fuels. Environmental Engineering Science, 2009, 26, 703-713.	0.8	24
44	Dry Gasification Oxy-combustion Power Cycle. Energy & Fuels, 2011, 25, 2258-2266.	2.5	24
45	Catalytic partial oxidation reformation of diesel, gasoline, and natural gas for use in low temperature combustion engines. Fuel, 2019, 246, 295-307.	3.4	23
46	Effect of water on performance and sizing of fuel-processing reactors. Catalysis Today, 2005, 99, 339-346.	2.2	22
47	An Investigation into the Mechanisms for Styrene-Butadiene Copolymer (SBR) Conversion in Combustion and Gasification Environments. International Journal of Green Energy, 2007, 4, 45-63.	2.1	20
48	In Situ CO₂ Capture Using CaO/Î³-Al₂O₃ Washcoated Monoliths for Sorption Enhanced Water Gas Shift Reaction. Industrial & Engineering Chemistry Research, 2014, 53, 1064-1072.	1.8	19
49	Role of plastics in decoupling municipal solid waste and economic growth in the U.S.. Waste Management, 2018, 77, 147-155.	3.7	19
50	Technical Feasibility of Zero Waste for Paper and Plastic Wastes. Waste and Biomass Valorization, 2019, 10, 1355-1363.	1.8	19
51	Autothermal reforming of tetradecane (C14H30): A mechanistic approach. Catalysis Today, 2008, 136, 273-280.	2.2	18
52	Pyrolysis of urea and guanidinium salts to be used as ammonia precursors for selective catalytic reduction of NOx. Journal of Analytical and Applied Pyrolysis, 2015, 113, 564-574.	2.6	18
53	Biomass to Fuels: Impact of Reaction Medium and Heating Rate. Environmental Engineering Science, 2010, 27, 539-555.	0.8	17
54	Simultaneous Energy Recovery from Waste Polymers in Biodiesel and Improving Fuel Properties. Waste and Biomass Valorization, 2013, 4, 105-116.	1.8	17

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55	Fate of Higher-Mass Elements and Surface Functional Groups during the Pyrolysis of Waste Pecan Shell. Energy & Fuels, 2015, 29, 8095-8101.	2.5	17
56	Thermally Assisted Dissociation of Methane Hydrates and the Impact of CO₂ Injection. Industrial & Engineering Chemistry Research, 2016, 55, 10465-10476.	1.8	17
57	Intrinsic kinetics of steam methane reforming on a thin, nanostructured and adherent Ni coating. Applied Catalysis B: Environmental, 2018, 238, 184-197.	10.8	17
58	Enthalpy changes during pyrolysis of biomass: Interpretation of intraparticle gas sampling. Applied Energy, 2018, 228, 1985-1993.	5.1	17
59	Approaching a zero-waste strategy by reuse in New York City: Challenges and potential. Waste Management and Research, 2020, 38, 734-744.	2.2	17
60	Perspectives on Sustainable Waste Management. Annual Review of Chemical and Biomolecular Engineering, 2014, 5, 547-562.	3.3	14
61	The impact of pressure, moisture and temperature on pyrolysis of municipal solid waste under simulated landfill conditions and relevance to the field data from elevated temperature landfill. Science of the Total Environment, 2020, 723, 138031.	3.9	14
62	Experimental Investigation of a JP8 Fuel Processor: Autothermal Reformer and CO-Cleanup Train. Industrial & Engineering Chemistry Research, 2010, 49, 1577-1587.	1.8	12
63	CFD analysis of municipal solid waste combustion using detailed chemical kinetic modelling. Waste Management and Research, 2014, 32, 745-754.	2.2	12
64	Investigating Secondary Pyrolysis Reactions of Coal Tar via Mass Spectrometry Techniques. Energy & Fuels, 2017, 31, 1269-1275.	2.5	11
65	Autothermal reforming of JP8 on a Pt/Rh catalyst: Catalyst durability studies and effects of sulfur. Journal of Power Sources, 2011, 196, 6374-6381.	4.0	10
66	Mechanistic Insights into Catalytic Ethanol Steam Reforming Using Isotopeâ€Łabeled Reactants. Angewandte Chemie - International Edition, 2016, 55, 10650-10655.	7.2	10
67	Improved gasification efficiency in IGCC plants & viscosity reduction of liquid fuels and solid fuel dispersion using liquid and gaseous CO2. Fuel, 2019, 256, 115848.	3.4	10
68	Quantitative analysis of residential plastic recycling in New York City. Waste Management and Research, 2021, 39, 703-712.	2.2	10
69	Deactivation, Regeneration, and Stable Performance of a PtMoRe Water Gas Shift Catalyst for On-Site Hydrogen Generation: Part 2. Topics in Catalysis, 2008, 51, 68-75.	1.3	9
70	Across-Phase Biomass Pyrolysis Stoichiometry, Energy Balance, and Product Formation Kinetics. Energy & Fuels, 2016, 30, 6537-6546.	2.5	9
71	Experimental Investigation of Reaction Confinement Effects on Coke Yield in Coal Pyrolysis. Energy & Fuels, 2016, 30, 6249-6256.	2.5	9
72	Biomass and RDF Gasification Using Ballistic Heating TGA Analysis. Waste and Biomass Valorization, 2014, 5, 607-623.	1.8	8

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73	An investigation into water and thermal balance for a liquid fueled fuel processor. Catalysis Today, 2007, 129, 397-406.	2.2	7
74	Technical assessment of the CLEERGAS moving grate-based process for energy generation from municipal solid waste. Waste Management and Research, 2014, 32, 772-781.	2.2	7
75	New York Cityâ€™s Reuse Impact Calculator: Quantifying the zero waste impact of materials reuse. Waste Management and Research, 2018, 36, 1190-1200.	2.2	7
76	Investigation of Short Contact Time Reactors for Regeneratively-Cooled Hypersonic Vehicles. Journal of Propulsion and Power, 2012, 28, 412-422.	1.3	5
77	The Impact of Sulfur on Ethanol Steam Reforming. Catalysis Letters, 2016, 146, 1361-1372.	1.4	5
78	110th Anniversary: Syngas Production Enhancement Using Calcium- and Potassium-Impregnated Chars. Industrial & Engineering Chemistry Research, 2019, 58, 15134-15141.	1.8	5
79	Chemical structures of fuel-rich flames of trans-C2H2Cl2/CH4/Ar/O2 mixtures. Combustion and Flame, 1996, 104, 41-50.	2.8	4
80	Numerical Modeling of Pollution Formation in Waste-to-Energy Systems Using Computational Fluid Dynamics. , 2011, , .		3
81	Experimental Investigation of Lignin Decomposition and Char Structure During CO2 and H2O/N2 Gasification. Waste and Biomass Valorization, 2012, 3, 49-60.	1.8	3
82	Investigation on electrical surface modification of waste to energy ash for possible use as an electrode material in microbial fuel cells. Waste Management and Research, 2018, 36, 259-268.	2.2	3
83	Mechanistic Insights into Catalytic Ethanol Steam Reforming Using Isotopeâ€Labeled Reactants. Angewandte Chemie, 2016, 128, 10808-10813.	1.6	2
84	A Brief Overview of Lab - Scale Apparatuses Used in the Recent Years for Experimental Investigations on Gas Hydrates. Key Engineering Materials, 0, 876, 57-66.	0.4	1
85	Fixed-bed reactors for exothermic reactions: A qualitative relation between start-up time and traveling waves velocity. Chemical Engineering Science, 2021, 235, 116504.	1.9	1
86	Abiotic decomposition of municipal solid waste under elevated temperature landfill conditions. Science of the Total Environment, 2022, 823, 153685.	3.9	1
87	Kinetics of Formation of Quantum Dot Solvent N-Oleoylmorpholine. Industrial & Engineering Chemistry Research, 2020, 59, 8562-8570.	1.8	0
88	D201 SOLID CARBON FEEDSTOCK GASIFICATION USING CO_2 SIMULATION AND EXPERIMENT(Biomass-4). The Proceedings of the International Conference on Power Engineering (ICOPE), 2009, 2009.2, _2-277_-_2-282_.	0.0	0
89	Investigating biomass pyrolysis through intra-particle gas measurements. , 2021, , .		0