

Sarma V Pisupati

List of Publications by Year in descending order

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72
papers

1,516
citations

279487

23
h-index

344852

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all docs

72
docs citations

72
times ranked

1565
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of Thermal Co-Conversion of Coal and Biomass/Waste. <i>Energies</i> , 2014, 7, 1098-1148.	1.6	175
2	A Critical Review of Mineral Matter Related Issues during Gasification of Coal in Fixed, Fluidized, and Entrained Flow Gasifiers. <i>Energies</i> , 2015, 8, 10430-10463.	1.6	77
3	Recovery of rare earth elements from coal fly ash through sequential chemical roasting, water leaching, and acid leaching processes. <i>Journal of Cleaner Production</i> , 2021, 284, 124725.	4.6	71
4	Effect of CO ₂ during Coal Pyrolysis and Char Burnout in Oxy-Coal Combustion. <i>Energy & Fuels</i> , 2011, 25, 2452-2459.	2.5	56
5	Precipitation of rare earth elements from acid mine drainage by CO ₂ mineralization process. <i>Chemical Engineering Journal</i> , 2020, 399, 125716.	6.6	53
6	Natural weathering and laboratory oxidation of bituminous coals: Organic and inorganic structural changes. <i>Fuel</i> , 1993, 72, 531-542.	3.4	49
7	Oxy-fuel combustion: The effect of coal rank and the role of char-CO ₂ reaction. <i>Fuel Processing Technology</i> , 2012, 102, 156-165.	3.7	40
8	Models of agglomerate growth in fluidized bed reactors: Critical review, status and applications. <i>Powder Technology</i> , 2014, 264, 216-228.	2.1	40
9	Interparticle Interactions in Highly Concentrated Coal-Water Slurries and Their Effect on Slurry Viscosity. <i>Energy & Fuels</i> , 2015, 29, 3675-3683.	2.5	40
10	Interpretation of Char Reactivity Profiles Obtained Using a Thermogravimetric Analyzer. <i>Energy & Fuels</i> , 2008, 22, 317-320.	2.5	39
11	Effect of additives on interfacial interactions for viscosity reduction of carbonaceous solid-water slurries. <i>Fuel</i> , 2016, 180, 50-58.	3.4	39
12	Carbon deposition on Ni-based catalyst with TiO ₂ as additive during the syngas methanation process in a fluidized bed reactor. <i>Fuel</i> , 2019, 235, 85-91.	3.4	39
13	Image analysis measurements of particle coefficient of restitution for coal gasification applications. <i>Powder Technology</i> , 2013, 247, 30-43.	2.1	36
14	A Study on Removal of Rare Earth Elements from U.S. Coal Byproducts by Ion Exchange. <i>Metallurgical and Materials Transactions E</i> , 2016, 3, 6-17.	0.5	36
15	Characterization of an entrained flow reactor for pyrolysis of coal and biomass at higher temperatures. <i>Fuel</i> , 2015, 156, 254-266.	3.4	35
16	Utilization of carbon dioxide from coal-based power plants as a heat transfer fluid for electricity generation in enhanced geothermal systems (EGS). <i>Energy</i> , 2013, 57, 505-512.	4.5	32
17	Analysis of tars formed during co-pyrolysis of coal and biomass at high temperature in carbon dioxide atmosphere. <i>Journal of Analytical and Applied Pyrolysis</i> , 2017, 128, 379-396.	2.6	32
18	Conditions for entrainment into a FeOx containing slag for a carbon-containing particle in an entrained coal gasifier. <i>Fuel Processing Technology</i> , 2008, 89, 1379-1385.	3.7	31

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19	Numerical modeling of NO _x reduction using pyrolysis products from biomass-based materials. <i>Biomass and Bioenergy</i> , 2008, 32, 146-154.	2.9	30
20	An investigation on polycyclic aromatic hydrocarbon emissions from pulverized coal combustion systems. <i>Journal of Hazardous Materials</i> , 2000, 74, 91-107.	6.5	29
21	A study on initiation of ash agglomeration in fluidized bed gasification systems. <i>Fuel</i> , 2015, 152, 48-57.	3.4	28
22	Dispersion mechanism of coal water slurry prepared by mixing various high-concentration organic waste liquids. <i>Fuel</i> , 2021, 287, 119340.	3.4	27
23	Partitioning behavior of trace elements during pilot-scale combustion of pulverized coal and coal-water slurry fuel. <i>Journal of Hazardous Materials</i> , 2000, 74, 47-59.	6.5	25
24	Modeling the CO ₂ -based enhanced geothermal system (EGS) paired with integrated gasification combined cycle (IGCC) for symbiotic integration of carbon dioxide sequestration with geothermal heat utilization. <i>International Journal of Greenhouse Gas Control</i> , 2015, 32, 197-212.	2.3	25
25	Effect of size and density on the thermodynamic predictions of coal particle phase formation during coal gasification. <i>Fuel Processing Technology</i> , 2009, 90, 1114-1121.	3.7	23
26	Comparison of entrained flow CO ₂ gasification behaviour of three low-rank coals – Victorian brown coal, Beulah lignite, and Inner Mongolia lignite. <i>Fuel</i> , 2019, 249, 206-218.	3.4	23
27	Evaluation of the use of coal volatiles as reburning fuel for NO _x reduction. <i>Fuel</i> , 2007, 86, 554-559.	3.4	21
28	Effect of hydrophobicity on viscosity of carbonaceous solid-water slurry. <i>Fuel Processing Technology</i> , 2015, 137, 124-130.	3.7	21
29	Devolatilization behaviour of naturally weathered and laboratory oxidized bituminous coals. <i>Fuel</i> , 1993, 72, 165-173.	3.4	19
30	Fate of Sulfur during Entrained-Flow Gasification of Pittsburgh No. 8 Coal: Influence of Particle Size, Sulfur Forms, and Temperature. <i>Energy & Fuels</i> , 2016, 30, 3241-3250.	2.5	19
31	Review of Particle Physics and Chemistry in Fluidized Beds for Development of Comprehensive Ash Agglomeration Prediction Models. <i>Energy & Fuels</i> , 2016, 30, 3714-3734.	2.5	17
32	Effect of various ligands on the selective precipitation of critical and rare earth elements from acid mine drainage. <i>Chemosphere</i> , 2021, 280, 130684.	4.2	17
33	An Integrative Approach for Combustor Design Using CFD Methods. <i>Energy & Fuels</i> , 2002, 16, 622-633.	2.5	16
34	Intrinsic gasification kinetics of coal chars generated in a high-pressure, high-temperature flow reactor. <i>Chemical Engineering Journal</i> , 2019, 375, 122028.	6.6	15
35	Influence of Calcium Content of Biomass-Based Materials on Simultaneous NO _x and SO ₂ Reduction. <i>Environmental Science & Technology</i> , 2008, 42, 2509-2514.	4.6	14
36	A study on fragmentation behavior, inorganic melt phase formation, and carbon loss during high temperature gasification of mineral matter rich fraction of Pittsburgh No. 8 coal. <i>Fuel</i> , 2017, 208, 247-259.	3.4	14

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37	Sorbent behaviour in circulating fluidized bed combustors: Relevance of thermally induced fractures to particle size dependence. <i>Fuel</i> , 1996, 75, 759-768.	3.4	13
38	Co-primary thermolysis molecular modeling simulation of lignin and subbituminous coal via a reactive coarse-grained simplification. <i>Journal of Analytical and Applied Pyrolysis</i> , 2012, 95, 101-111.	2.6	13
39	Effect of Heterogeneity in Coal Ash Chemical Composition on the Onset of Conditions Favorable for Agglomeration in Fluid Beds. <i>Energies</i> , 2015, 8, 12530-12545.	1.6	12
40	Effects of natural weathering and low-temperature oxidation on some aspects of the combustion behaviour of bituminous coals. <i>Fuel</i> , 1993, 72, 779-785.	3.4	11
41	Investigation of fluidized bed agglomerate growth process using simulations and SEM-EDX characterization of laboratory-generated agglomerates. <i>Chemical Engineering Science</i> , 2018, 184, 172-185.	1.9	11
42	Application of Particle Population Model To Determine the Contribution to Slag, Flyash, and Syngas in Entrained Flow Gasification from Particle Size Distribution. <i>Energy & Fuels</i> , 2013, 27, 7681-7695.	2.5	10
43	Combustion characteristics of naturally weathered (in situ) bituminous coals. <i>Fuel Processing Technology</i> , 1991, 28, 49-66.	3.7	9
44	The Effect of Mixing Model and Mixing Characteristics on Nox Reduction during Reburning. <i>Energy & Fuels</i> , 2001, 15, 363-371.	2.5	8
45	Prediction of Sorbent Performance in a Circulating Fluidized Bed Boiler Based on Petrographic Properties. <i>Journal of Engineering for Gas Turbines and Power</i> , 2007, 129, 565-571.	0.5	8
46	Effect of Temperature, Pressure, Feed Particle Size, and Feed Particle Density on Structural Characteristics and Reactivity of Chars Generated during Gasification of Pittsburgh No.8 Coal in a High-Pressure, High-Temperature Flow Reactor. <i>Energies</i> , 2019, 12, 4773.	1.6	8
47	Effect of blending low-grade anthracite products with bituminous coals on combustion characteristics in a bench-scale stoker simulator. <i>Fuel Processing Technology</i> , 1992, 32, 159-179.	3.7	7
48	Influence of Pyrolysis Gas on Volatile Yield and CO ₂ Reaction Kinetics of the Char Samples Generated in a High-Pressure, High-Temperature Flow Reactor. <i>Energies</i> , 2019, 12, 107.	1.6	7
49	Effects of pressure and CO concentration on vanadium, nickel and iron phase transformations for petcoke slag viscosity correlation development. <i>Fuel</i> , 2019, 253, 238-248.	3.4	7
50	Effect of Furnace Purging on Kinetic Rate Parameter Determination Using Isothermal Thermogravimetric Analysis. <i>Energy & Fuels</i> , 2011, 25, 4937-4943.	2.5	6
51	Development and use of a method for prediction of the ash split in a CFBC boiler to improve the energy efficiency. <i>Fuel</i> , 2012, 102, 9-15.	3.4	6
52	Determination of Sticking Probability Based on the Critical Velocity Derived from a Visco-Elastoplastic Model to Characterize Ash Deposition in an Entrained Flow Gasifier. <i>Energy & Fuels</i> , 2014, 28, 5307-5317.	2.5	6
53	Using yttrium as an indicator to estimate total rare earth element concentration: a case study of anthracite-associated clays from northeastern Pennsylvania. <i>International Journal of Coal Science and Technology</i> , 2020, 7, 652-661.	2.7	6
54	Modeling char surface area evolution during coal pyrolysis: Evolving characteristics with coal rank. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 156, 105110.	2.6	6

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55	The effect of caustic soda treatment to recover rare earth elements from secondary feedstocks with low concentrations. <i>Minerals Engineering</i> , 2021, 173, 107184.	1.8	6
56	Partitioning behavior during coal combustion of potentially deleterious trace elements in Ge-rich coals from Wulantuga coal mine, Inner Mongolia, China. <i>Fuel</i> , 2021, 305, 121595.	3.4	6
57	The measurement of flyash and bottom ash flow rates from a circulating fluidized bed boiler. <i>Environmental Progress</i> , 2000, 19, 175-182.	0.8	5
58	Pairing Integrated Gasification and Enhanced Geothermal Systems (EGS) in Semiarid Environments. <i>Energy & Fuels</i> , 2012, 26, 7378-7389.	2.5	5
59	Role of condensed phases in the agglomeration of low rank coal ash in fluidized beds. <i>Fuel</i> , 2018, 232, 1-11.	3.4	5
60	Comparison of Natural and Synthetic Petroleum Coke Slag Viscosities under Reducing Conditions: Applicability of Predictive Models Using Factsage and Modified Urbain Model. <i>Fuels</i> , 2021, 2, 37-47.	1.3	5
61	Effect of Fuel Properties on the Bottom Ash Generation Rate by a Laboratory Fluidized Bed Combustor. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2007, 129, 144-151.	1.4	4
62	Identification of Significant Factors in Reburning with Coal Volatiles. <i>Environmental Science & Technology</i> , 2008, 42, 2004-2008.	4.6	4
63	Utilization of coal in IGCC systems. , 2017, , 83-120.		4
64	Integrated modeling methodology for ash agglomeration in poly-disperse fluidized beds using particle population framework. <i>Powder Technology</i> , 2021, 384, 368-378.	2.1	4
65	Physical and Chemical Characterization of Coal Particles Used as Entrained Flow Gasifier Feedstock: Heterogeneity in Mineral Matter Distribution. <i>Energy Procedia</i> , 2012, 14, 1735-1740.	1.8	3
66	A study of Indian limestones for sulfur capture in FBC plants: Particle size sensitivity of sulfation behavior. <i>Fuel</i> , 2015, 161, 376-383.	3.4	3
67	Modeling the Impact of Operating Variables on Ash Agglomeration in Chemical Looping Combustion of Solid Fuels. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 17970-17979.	1.8	2
68	Special Issue on Advances in Fluidized Bed Combustion. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2006, 128, 89-89.	1.4	1
69	A FactsSage Simulation Study on the Interaction of Synthetic Petcoke Slags with Alumina Crucibles. <i>Fuels</i> , 2021, 2, 48-70.	1.3	1
70	The Mercer Clay in Pennsylvania as a Polymetallic Mineral Resource: Review and Update. <i>Mining, Metallurgy and Exploration</i> , 2021, 38, 2037-2054.	0.4	1
71	Introduction. <i>Journal of Hazardous Materials</i> , 2000, 74, ix.	6.5	0
72	Multicycle Study on Chemical Looping Combustion with a CaSO ₄ -CaO Mixed Oxygen Carrier. <i>International Journal of Chemical Reactor Engineering</i> , 2019, 17, .	0.6	0