Iskender Gokalp

List of Publications by Year in descending order

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101 papers	4,220 citations	87723 38 h-index	123241 61 g-index
102 all docs	102 docs citations	102 times ranked	3618 citing authors

#	Article	IF	Citations
1	Atomization and Breakup of Cryogenic Propellants Under High-Pressure Subcritical and Supercritical Conditions. Journal of Propulsion and Power, 1998, 14, 835-842.	1.3	212
2	Pyrolysis, combustion and gasification characteristics of miscanthus and sewage sludge. Energy Conversion and Management, 2015, 89, 83-91.	4.4	193
3	Characterization of the effects of hydrogen addition in premixed methane/air flames. International Journal of Hydrogen Energy, 2007, 32, 2585-2592.	3.8	164
4	Hydrothermal carbonization characteristics of sewage sludge and lignocellulosic biomass. A comparative study. Biomass and Bioenergy, 2019, 120, 166-175.	2.9	152
5	Thermogravimetric and mass spectrometric (TG-MS) analysis and kinetics of coal-biomass blends. Renewable Energy, 2017, 101, 293-300.	4.3	151
6	Experimental studies of the fundamental flame speeds of syngas (H2/CO)/air mixtures. Proceedings of the Combustion Institute, 2011, 33, 913-920.	2.4	133
7	Characterization of syngas laminar flames using the Bunsen burner configuration. International Journal of Hydrogen Energy, 2011, 36, 992-1005.	3.8	121
8	Current status of droplet evaporation in turbulent flows. Progress in Energy and Combustion Science, 2006, 32, 408-423.	15.8	107
9	Fermentative production of butanol: Perspectives on synthetic biology. New Biotechnology, 2017, 37, 210-221.	2.4	107
10	Valorization of horse manure through catalytic supercritical water gasification. Waste Management, 2016, 52, 147-158.	3.7	104
11	Characterization of flame front surfaces in turbulent premixed methane/Air combustion. Combustion and Flame, 1995, 101, 461-470.	2.8	99
12	Kinetics of steam and CO 2 gasification of high ash coalâ€“char produced under various heating rates. Fuel, 2015, 154, 370-379.	3.4	98
13	Alternative fuels for industrial gas turbines (AFTUR). Applied Thermal Engineering, 2004, 24, 1655-1663.	3.0	96
14	Droplet vaporisation characteristics of vegetable oil derived biofuels at high temperatures. Experimental Thermal and Fluid Science, 2000, 21, 41-50.	1.5	88
15	Pyrolysis, combustion and gasification studies of different sized coal particles using TGA-MS. Applied Thermal Engineering, 2017, 125, 1446-1455.	3.0	88
16	An assessment of pinecone gasification in subcritical, near-critical and supercritical water. Fuel Processing Technology, 2017, 168, 84-96.	3.7	87
17	Pyrolysis, Combustion, and Steam Gasification of Various Types of Scrap Tires for Energy Recovery. Energy & Fuels, 2015, 29, 346-354.	2.5	79
18	Hydrothermal carbonization of dried olive pomace: Energy potential and process performances. Journal of Analytical and Applied Pyrolysis, 2017, 128, 281-290.	2.6	77

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19	Studies on the Ignition and Burning of Levitated Aluminum Particlesâˆ—. Combustion Science and Technology, 1996, 115, 369-390.	1.2	72
20	Ab initio quantum chemical predictions of enthalpies of formation, heat capacities, and entropies of gas-phase energetic compounds. Combustion and Flame, 2007, 151, 262-273.	2.8	72
21	Combustion mechanism and model free kinetics of different origin coal samples: Thermal analysis approach. Energy, 2020, 204, 117905.	4.5	71
22	Effect of char generation method on steam, CO 2 and blended mixture gasification of high ash Turkish coals. Fuel, 2015, 153, 320-327.	3.4	67
23	Gasification characteristics of petcoke and coal blended petcoke using thermogravimetry and mass spectrometry analysis. Applied Thermal Engineering, 2015, 80, 10-19.	3.0	64
24	Combustion and kinetic parameters estimation of torrefied pine, acacia and Miscanthus giganteus using experimental and modelling techniques. Bioresource Technology, 2017, 243, 304-314.	4.8	60
25	Mass transfer from liquid fuel droplets in turbulent flow. Combustion and Flame, 1992, 89, 286-298.	2.8	59
26	Combustion properties and kinetics of different biomass samples using TGâ€“MS technique. Journal of Thermal Analysis and Calorimetry, 2017, 127, 1361-1370.	2.0	59
27	Evaluating Missile Fuels. Propellants, Explosives, Pyrotechnics, 2006, 31, 343-354.	1.0	58
28	High ash coal pyrolysis at different heating rates to analyze its char structure, kinetics and evolved species. Journal of Analytical and Applied Pyrolysis, 2015, 113, 426-433.	2.6	55
29	Thermochemistry of methyl and ethyl esters from vegetable oils. International Journal of Chemical Kinetics, 2007, 39, 481-491.	1.0	54
30	Effects of O2 enrichment and CO2 dilution on laminar methane flames. Energy, 2013, 55, 1055-1066.	4.5	54
31	An analysis of the d2-law departure during droplet evaporation in microgravity. International Journal of Multiphase Flow, 2011, 37, 252-259.	1.6	53
32	CO2 addition and pressure effects on laminar and turbulent lean premixed CH4 air flames. Proceedings of the Combustion Institute, 2009, 32, 1803-1810.	2.4	48
33	Energy recovery analysis from sugar cane bagasse pyrolysis and gasification using thermogravimetry, mass spectrometry and kinetic models. Journal of Analytical and Applied Pyrolysis, 2018, 132, 225-236.	2.6	45
34	Thermochemistry of Câˆ’C and Câˆ’H Bond Breaking in Fatty Acid Methyl Esters. Energy & Fuels, 2007, 21, 2027-2032.	2.5	44
35	An analysis of the droplet support fiber effect on the evaporation process. International Journal of Heat and Mass Transfer, 2019, 128, 885-891.	2.5	44
36	VAPORIZATION AND OXIDATION OF LIQUID FUEL DROPLETS AT HIGH TEMPERATURE AND HIGH PRESSURE: APPLICATION TON-ALKANES AND VEGETABLE OIL METHYL ESTERS. Combustion Science and Technology, 2004, 176, 499-529.	1.2	43

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37	Numerical Study of the Continuous Detonation Wave Rocket Engine. , 2008, , .		41
38	Catalytic subcritical and supercritical water gasification as a resource recovery approach from waste tires for hydrogen-rich syngas production. Journal of Supercritical Fluids, 2019, 154, 104627.	1.6	41
39	A new correlation for turbulent mass transfer from liquid droplets. International Journal of Heat and Mass Transfer, 2002, 45, 37-45.	2.5	40
40	Rate constants for the homogeneous gas-phase Al/HCl combustion chemistry. Combustion and Flame, 2003, 132, 91-101.	2.8	34
41	Experimental Study of Oxygen Enrichment Effects on Turbulent Non-premixed Swirling Flames. Energy & Fuels, 2013, 27, 6191-6197.	2.5	34
42	Fractal characterisation of high-pressure and hydrogen-enriched CH4â€“air turbulent premixed flames. Proceedings of the Combustion Institute, 2007, 31, 1345-1352.	2.4	33
43	Ignition and combustion of levitated magnesium particles in carbon dioxide. Proceedings of the Combustion Institute, 1998, 27, 2413-2419.	0.3	32
44	Combustion characteristics of methaneâ€“oxygen enhanced air turbulent non-premixed swirling flames. Experimental Thermal and Fluid Science, 2014, 56, 53-60.	1.5	31
45	Investigation of pressure effects on the small scale wrinkling of turbulent premixed Bunsen flames. Proceedings of the Combustion Institute, 2015, 35, 1527-1535.	2.4	31
46	Revisiting Numerical Errors in Direct and Large Eddy Simulations of Turbulence: Physical and Spectral Spaces Analysis. Journal of Computational Physics, 2001, 174, 816-851.	1.9	29
47	An Attempt to Realize Experimental Isotropic Turbulence at Low Reynolds Number. Flow, Turbulence and Combustion, 2003, 70, 325-348.	1.4	29
48	Catalytic gasification of light and heavy gas oils in supercritical water. Journal of the Energy Institute, 2020, 93, 2025-2032.	2.7	29
49	Thermochemistry of C O, (CO) O, and (CO) C bond breaking in fatty acid methyl esters. Combustion and Flame, 2008, 155, 334-342.	2.8	28
50	Analysis of flame surface density measurements in turbulent premixed combustion. Combustion and Flame, 2009, 156, 657-664.	2.8	27
51	Thermogravimetric and evolved gas analyses of high ash Indian and Turkish coal pyrolysis and gasification. Journal of Thermal Analysis and Calorimetry, 2015, 121, 919-927.	2.0	25
52	Systematic Numerical Study of the Supersonic Combustion in an Experimental Combustion Chamber. , 2006, , .		24
53	Strain effects on the structure of counterflowing turbulent premixed flames. Proceedings of the Combustion Institute, 1994, 25, 1199-1205.	0.3	23
54	Effects of reduced gravity on methanol droplet combustion at high pressures. Proceedings of the Combustion Institute, 2000, 28, 1071-1077.	2.4	23

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55	Mars hopper versus Mars rover. Acta Astronautica, 2006, 59, 710-716.	1.7	23
56	Hydrodynamics, heat transfer and kinetics reaction of CFD modeling of a batch stirred reactor under hydrothermal carbonization conditions. Energy, 2021, 219, 119635.	4.5	23
57	Study of pollutant emissions and dynamics of non-premixed turbulent oxygen enriched flames from a swirl burner. Proceedings of the Combustion Institute, 2017, 36, 3959-3968.	2.4	22
58	Cultivation of green microalgae by recovering aqueous nutrients in hydrothermal carbonization process water of biomass wastes. Journal of Water Process Engineering, 2021, 40, 101783.	2.6	22
59	Thermochemistry of Compounds Formed during Fast Pyrolysis of Lignocellulosic Biomass. Energy & Fuels, 2008, 22, 4265-4273.	2.5	21
60	Use of the Adaptive Mesh Refinement for 3D Simulations of a CDWRE (Continuous Detonation Wave) Tj ETQq0 0 0 rgBT /Overlock 10 T		20
61	On periodic behavior of weakly turbulent premixed flame corrugations. Combustion and Flame, 2016, 168, 147-165.	2.8	18
62	Numerical Simulation of Hydrogen Supersonic Combustion and Validation of Computational Approach. , 2003, , .		17
63	Comparative pyrolysis studies of lignocellulosic biomasses: Online gas quantification, kinetics triplets, and thermodynamic parameters of the process. Bioresource Technology, 2022, 346, 126598.	4.8	17
64	Turbulence effects on the combustion of single hydrocarbon droplets. Proceedings of the Combustion Institute, 2000, 28, 1015-1021.	2.4	15
65	Droplet Evaporation in a Turbulent Environment at Elevated Pressure and Temperature Conditions. Combustion Science and Technology, 2008, 180, 1987-2014.	1.2	15
66	Theoretical and Numerical Studies on Continuous Detonation Wave Engines. , 2011, , .		15
67	Numerical investigations on flashback dynamics of premixed methane-hydrogen-air laminar flames. International Journal of Hydrogen Energy, 2022, 47, 25022-25033.	3.8	15
68	Evolution of naphthalene and its intermediates during oxidation in subcritical/supercritical water. Proceedings of the Combustion Institute, 2011, 33, 3185-3194.	2.4	14
69	Kinetic Mechanism Validation and Numerical Simulation of Supersonic Combustion of Methane-Hydrogen Fuel. , 2002, , .		13
70	Simulation numÃ©rique des jets turbulents subsoniques Ã masse volumique variable par le modÃ¨le kâ€“Îµ. International Journal of Thermal Sciences, 2002, 41, 51-62.	2.6	12
71	Study of Lean Premixed Methane Combustion with CO₂ Dilution under Gas Turbine Conditions. Energy & Fuels, 2013, 27, 1093-1103.	2.5	12
72	Swirl Motion Effects on Flame Dynamic of Pulverized Olive Cake in a Vertical Furnace. Combustion Science and Technology, 2016, 188, 1951-1971.	1.2	12

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73	Heating rate effects on pyrolysis, gasification and combustion of olive waste. Biofuels, 2019, , 1-8.	1.4	11
74	Spatial and temporal dynamics of flamelets in turbulent premixed flames. Proceedings of the Combustion Institute, 1996, 26, 331-337.	0.3	10
75	A comparison between dynamic and scalar timescales in lean premixed turbulent flames. Proceedings of the Combustion Institute, 1998, 27, 775-783.	0.3	10
76	Numerical Modeling of Inert and Reacting Compressible Turbulent Jets. , 2005, , .		10
77	Plasma thermal conversion of bio-oil for hydrogen production. International Journal of Energy Research, 2012, 36, 409-414.	2.2	10
78	Modeling of <i>Agave Salmiana</i> bagasse conversion by hydrothermal carbonization (HTC) for solid fuel combustion using surface response methodology. AIMS Energy, 2020, 8, 538-562.	1.1	9
79	Hydrothermal carbonization of biomass: experimental study, energy balance, process simulation, design, and techno-economic analysis. Biomass Conversion and Biorefinery, 2024, 14, 2561-2576.	2.9	9
80	Accurate initial conditions for the direct numerical simulation of temporal compressible binary shear layers with high density ratio. Computers and Fluids, 2004, 33, 549-576.	1.3	8
81	Multi-Scale High Intensity Turbulence Generator Applied to a High Pressure Turbulent Burner. Flow, Turbulence and Combustion, 2015, 94, 263-283.	1.4	8
82	Numerical Study on Flame-Front Characteristics of Conical Turbulent Lean Premixed Methane/Air Flames. Energy & Fuels, 2009, 23, 1843-1848.	2.5	7
83	Quantification and kinetic study of the main compounds in biocrude produced by hydrothermal carbonization of lignocellulosic biomass. Bioresource Technology Reports, 2021, 15, 100770.	1.5	7
84	Pressure effects on the spectral behavior of the thermal field in non-reacting and low DamkÃ¶hler reacting flows. International Journal of Thermal Sciences, 1999, 38, 819-831.	2.6	6
85	Assessment of Global and Network Models of Devolatilization for Numerical Analysis of Pulverized Coal Combustion. Combustion Science and Technology, 2019, 191, 520-537.	1.2	6
86	Modeling and numerical simulations of lignite char gasification with CO2: The effect of gasification parameters on internal transport phenomena. Fuel, 2021, 285, 119067.	3.4	6
87	Kinetic studies of hydrothermal carbonization of avocado stone and analysis of the polycyclic aromatic hydrocarbon contents in the hydrochars produced. Fuel, 2022, 316, 123163.	3.4	6
88	Time scales of the scalar field in turbulent premixed conical flames. Proceedings of the Combustion Institute, 1989, 22, 755-761.	0.3	5
89	Free Turbulent Reacting Jet Simulation Based on Combination of Transport Equations and PDF. Engineering Applications of Computational Fluid Mechanics, 2010, 4, 246-259.	1.5	5
90	Modelling of the subgrid scale wrinkling factor for large eddy simulation of turbulent premixed combustion. Combustion Theory and Modelling, 2016, 20, 393-409.	1.0	5

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91	RANS modelling of a lifted hydrogen flame using eulerian/lagrangian approaches with transported PDF method. Energy, 2018, 164, 1242-1256.	4.5	5
92	Pyrolysis and Gasification Characteristics of High Ash Indian and Turkish Coals. , 2018, , .		5
93	Structural response of different Lewis number premixed flames interacting with a toroidal vortex. Proceedings of the Combustion Institute, 2019, 37, 1911-1918.	2.4	5
94	Hydrothermal carbonization processes applied to wet organic waste streams. International Journal of Energy Research, 2022, 46, 16109-16126.	2.2	5
95	Characterization of Cellular Instabilities of a Flame Propagating in an Aerosol. , 2015, , .		4
96	Comparison of a spectral model for premixed turbulent flame propagation to DNS and experiments. Combustion Theory and Modelling, 2000, 4, 241-264.	1.0	3
97	A TECHNO-ECONOMIC FEASIBILITY ANALYSIS OF THE GASIFICATION OF USED TIRES FOR ENERGY GENERATION IN TURKEY. Detritus, 2019, Volume 07 - September 2019, 1.	0.4	3
98	Clean Smart Grid: Primary Frequency Control Applying H2/O2 Rocket Combustor Technology. , 2009, , .		2
99	Analysis of Turbulent Lean Premixed Methaneâ€“Air Flame Statistics at Elevated Pressures. Energy & Fuels, 2017, 31, 12815-12822.	2.5	2
100	Parallelization of Robust Multigrid Technique Using OpenMP Technology. Lecture Notes in Computer Science, 2021, , 196-209.	1.0	1
101	Micro scalar timescales in premixed turbulent combustion. Proceedings of the Combustion Institute, 2000, 28, 351-358.	2.4	0