

Nicolas Gascoin

List of Publications by Year in descending order

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90
papers

1,373
citations

331670

21
h-index

414414

32
g-index

93
all docs

93
docs citations

93
times ranked

680
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterisation of coking activity during supercritical hydrocarbon pyrolysis. Fuel Processing Technology, 2008, 89, 1416-1428.	7.2	99
2	Validation of Transient Cooling Modeling for Hypersonic Application. Journal of Thermophysics and Heat Transfer, 2007, 21, 86-94.	1.6	81
3	Thermal degradation analysis of innovative PEKK-based carbon composites for high-temperature aeronautical components. Aerospace Science and Technology, 2017, 65, 106-116.	4.8	68
4	Synthetic and jet fuels pyrolysis for cooling and combustion applications. Journal of Analytical and Applied Pyrolysis, 2010, 89, 294-306.	5.5	60
5	Methane pyrolysis: Literature survey and comparisons of available data for use in numerical simulations. Journal of Analytical and Applied Pyrolysis, 2013, 104, 1-9.	5.5	50
6	Hydrocarbon pyrolysis with a methane focus: A review on the catalytic effect and the coke production. Journal of Analytical and Applied Pyrolysis, 2014, 108, 1-11.	5.5	47
7	Parametric study on the distribution of flow rate and heat sink utilization in cooling channels of advanced aero-engines. Energy, 2017, 138, 1056-1068.	8.8	38
8	The flow rate distribution of hydrocarbon fuel in parallel channels with different cross section shapes. Applied Thermal Engineering, 2018, 137, 173-183.	6.0	37
9	High temperature and pressure reactive flows through porous media. International Journal of Multiphase Flow, 2011, 37, 24-35.	3.4	35
10	Fuel pyrolysis through porous media: Coke formation and coupled effect on permeability. Journal of Analytical and Applied Pyrolysis, 2012, 95, 180-188.	5.5	34
11	Experimental study on combustion modes and thrust performance of a staged-combustor of the scramjet with dual-strut. Acta Astronautica, 2016, 122, 28-34.	3.2	33
12	Thermal and Hydraulic Effects of Coke Deposit in Hydrocarbon Pyrolysis Process. Journal of Thermophysics and Heat Transfer, 2012, 26, 57-65.	1.6	30
13	Dimensioning of automated regenerative cooling: Setting of high-end experiment. Aerospace Science and Technology, 2015, 43, 350-359.	4.8	30
14	Experimental study of pyrolysis-combustion coupling in a regeneratively cooled combustor: System dynamics analysis. Aerospace Science and Technology, 2017, 67, 473-483.	4.8	30
15	Structural and thermal characterization of multiwall carbon nanotubes (MWCNTs) / aluminum (Al) nanocomposites. Composites Part B: Engineering, 2018, 151, 232-236.	12.0	27
16	Experimental study of pyrolysis-combustion coupling in a regeneratively cooled combustor: Heat transfer and coke formation. Fuel, 2019, 239, 1091-1101.	6.4	26
17	Fuel Reforming for Scramjet Thermal Management and Combustion Optimization. , 2005, , .		24
18	Effect of geometry parameters on the hydrocarbon fuel flow rate distribution in pyrolysis zone of SCRamjet cooling channels. International Journal of Heat and Mass Transfer, 2019, 141, 1114-1130.	4.8	24

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19	Numerical investigation of the heat transfer in an aeronautical composite material under fire stress. <i>Fire Safety Journal</i> , 2016, 80, 56-63.	3.1	23
20	The influences of the header geometry on hydrocarbon fuel flow distribution in compact parallel channels. <i>Aerospace Science and Technology</i> , 2018, 79, 318-327.	4.8	23
21	Real-time method for the identification and quantification of hydrocarbon pyrolysis products: Part II. Application to transient pyrolysis and validation by numerical simulation. <i>Journal of Analytical and Applied Pyrolysis</i> , 2011, 91, 377-387.	5.5	21
22	Experimental flash pyrolysis of high density polyethylene under hybrid propulsion conditions. <i>Journal of Analytical and Applied Pyrolysis</i> , 2013, 101, 45-52.	5.5	21
23	Pyrolysis in porous media: Part 1. Numerical model and parametric study. <i>Energy Conversion and Management</i> , 2013, 68, 63-73.	9.2	21
24	Predicting the flame characteristics and rate of spread in fires propagating in a bed of <i>Pinus pinaster</i> using Artificial Neural Networks. <i>Chemical Engineering Research and Design</i> , 2015, 98, 50-56.	5.6	21
25	Kinetic modelling of high density polyethylene pyrolysis: Part 1. Comparison of existing models. <i>Polymer Degradation and Stability</i> , 2012, 97, 1466-1474.	5.8	20
26	The influences of variable sectional area design on improving the hydrocarbon fuel flow distribution in parallel channels under supercritical pressure. <i>Fuel</i> , 2018, 233, 442-453.	6.4	20
27	COMPARISON OF TWO PERMEATION TEST BENCHES AND TWO DETERMINATION METHODS FOR DARCY'S AND FORCHHEIMER'S PERMEABILITIES. <i>Journal of Porous Media</i> , 2012, 15, 705-720.	1.9	19
28	SFGP 2007 - Pyrolysis of Supercritical Endothermic Fuel: Evaluation for Active Cooling Instrumentation. <i>International Journal of Chemical Reactor Engineering</i> , 2008, 6, .	1.1	18
29	Parametric study on the hydrocarbon fuel flow rate distribution and cooling effect in non-uniformly heated parallel cooling channels. <i>International Journal of Heat and Mass Transfer</i> , 2018, 126, 267-276.	4.8	18
30	Kinetic modelling of High Density PolyEthylene pyrolysis: Part 2. Reduction of existing detailed mechanism. <i>Polymer Degradation and Stability</i> , 2012, 97, 1142-1150.	5.8	17
31	Literature survey for a first choice of a fuel-oxidiser couple for hybrid propulsion based on kinetic justifications. <i>Journal of Analytical and Applied Pyrolysis</i> , 2012, 94, 1-9.	5.5	17
32	Effect of flow configuration on Darcian and Forchheimer permeabilities determination in a porous composite tube. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 316-323.	7.1	17
33	Preparation and characterization of polytetrafluoroethylene (PTFE)/Thermally Expanded Graphite (TEG) nanocomposites. <i>Composites Part B: Engineering</i> , 2017, 124, 175-181.	12.0	17
34	Real-time method for the identification and quantification of hydrocarbon pyrolysis products: Part I. Development and validation of the infra red technique. <i>Journal of Analytical and Applied Pyrolysis</i> , 2011, 91, 368-376.	5.5	16
35	Determination of thermophysical properties for carbon-reinforced polymer-based composites up to 1000 Å°C. <i>Thermochimica Acta</i> , 2018, 659, 157-165.	2.7	16
36	Fire resistance of carbon-based composite materials under both ideal and realistic normative configurations. <i>Applied Thermal Engineering</i> , 2019, 159, 113834.	6.0	16

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37	Chemical composition and mass flow measurements in a supercritical reactive flow for hypersonic real-time application. <i>Aerospace Science and Technology</i> , 2010, 14, 266-275.	4.8	14
38	Thermal behavior of an isolator with mode transition inducing back-pressure of a dual-mode scramjet. <i>Chinese Journal of Aeronautics</i> , 2017, 30, 595-601.	5.3	14
39	One-dimensional pyrolysis of carbon based composite materials using FireFOAM. <i>Fire Safety Journal</i> , 2018, 97, 66-75.	3.1	13
40	Release and flammability evaluation of pyrolysis gases from carbon-based composite materials undergoing fire conditions. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 134, 136-142.	5.5	13
41	Dynamic Study of Coupled Heavy Hydrocarbon Pyrolysis and Combustion. <i>Combustion Science and Technology</i> , 2012, 184, 2136-2153.	2.3	12
42	Novel viscosity determination method: Validation and application to fuel flow. <i>Flow Measurement and Instrumentation</i> , 2011, 22, 529-536.	2.0	10
43	Detailed kinetic computations and experiments for the choice of a fuel-oxidiser couple for hybrid propulsion. <i>Journal of Analytical and Applied Pyrolysis</i> , 2012, 94, 33-40.	5.5	10
44	Preliminary pyrolysis and combustion study for the hybrid propulsion.. , 2010, , .		9
45	2D transient numerical code for hybrid rocket simulations with detailed chemistry. , 2011, , .		8
46	Numerical modeling of combustion chamber material permeability change. <i>Aerospace Science and Technology</i> , 2018, 78, 553-558.	4.8	8
47	Transient and Spatial Evolution of Clogging of Porous Material by Filtrating Particles. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 12261-12271.	3.7	8
48	A Study of Thermal Degradation and Fire Behaviour of Polymer Composites and Their Gaseous Emission Assessment. <i>Energies</i> , 2021, 14, 7070.	3.1	8
49	Fuel Pyrolysis through Porous Media: Coke Formation and Coupled effect on Permeability. , 2011, , .		7
50	Numerical study on a porous material subject to SiC particles deposition, using OpenFOAM and sensitivity analysis technique: Effect of clogging evolution on the thermal performances. <i>Chemical Engineering Science</i> , 2020, 212, 115321.	3.8	7
51	PYROLYSIS IN POROUS MEDIA: PART 2. NUMERICAL ANALYSIS AND COMPARISON TO EXPERIMENTS. <i>Journal of Porous Media</i> , 2013, 16, 857-873.	1.9	7
52	Numerical and experimental validation of transient modelling for Scramjet active cooling with supercritical endothermic fuel. , 2006, , .		6
53	Measurements for Fuel Reforming for Scramjet Thermal Management and Combustion Optimization: Status of the COMPAREER Project. , 2006, , .		6
54	Permeation of Inert and Supercritical Reactive Fluids Through Metallic and Composite Media. , 2010, , .		6

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55	Experimental determination of fire degradation kinetic for an aeronautical polymer composite material. <i>International Journal of Structural Integrity</i> , 2018, 9, 76-92.	3.3	6
56	Sensitivity analysis of fluid properties and operating conditions on flow distribution in non-uniformly heated parallel pipes. <i>Applied Thermal Engineering</i> , 2018, 130, 458-465.	6.0	6
57	Characterisation of oxidised aluminium powder: Validation of a new anodic oxidation bench. <i>Journal of Hazardous Materials</i> , 2009, 171, 348-357.	12.4	5
58	Confined Kerosene Vapor Explosion: Severity Prediction Laws Based on Numerical Simulations.. <i>Energy & Fuels</i> , 2010, 24, 404-418.	5.1	5
59	Experimental investigation on the concentration and voltage effects on the characteristics of deposited magnesium-lanthanum powder. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 119, 1327-1333.	2.3	5
60	NEURAL-NETWORK METAMODELLING FOR THE PREDICTION OF THE PRESSURE DROP OF A FLUID PASSING THROUGH METALLIC POROUS MEDIUM. <i>Journal of Porous Media</i> , 2014, 17, 431-438.	1.9	5
61	Study of flame retardancy effect on the thermal degradation of a new green biocomposite and estimation of lower flammability limits of the gaseous emissions. <i>Journal of Thermal Analysis and Calorimetry</i> , 0, , 1.	3.6	5
62	Determination of Darcian permeability of porous material by infrared spectrometry. <i>Journal of Porous Materials</i> , 2012, 19, 317-331.	2.6	4
63	Prediction of transient chemistry effect during fuel pyrolysis on the pressure drop through porous material using artificial neural networks. <i>Journal of Analytical and Applied Pyrolysis</i> , 2015, 115, 143-148.	5.5	4
64	Fluid flow analysis to describe the permeation process along the length of the porous tube. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 25531-25543.	7.1	4
65	Axial distribution of permeance and of ideal selectivity of a porous cylindrical tube. <i>Chemical Engineering Science</i> , 2018, 183, 295-305.	3.8	4
66	Experimental transient clogging of brass porous disks by silicium particles. <i>Experimental Thermal and Fluid Science</i> , 2018, 98, 112-120.	2.7	4
67	Test bench dimensioned by specific numerical tool. <i>Computer Aided Chemical Engineering</i> , 2008, , 835-840.	0.5	3
68	Pyrolysis in Porous Media: Numerical Analysis and Comparison to Experiments. , 2012, , .		3
69	Flash Pyrolysis of High Density PolyEthylene. , 2013, , .		3
70	Permselectivity Bench to Study Permatation Along Porous Tube. , 2017, , .		3
71	IMPACT OF POST-PROCESSING METHODS ON ACCURACY OF DARCIAN AND FORCHHEIMER PERMEABILITIES DETERMINATION. <i>Journal of Porous Media</i> , 2016, 19, 771-782.	1.9	3
72	Characterization of supercritical reactive flow for hypersonic real-time application. , 2009, , .		2

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73	Supersonic combustion of hydrocarbons pyrolysed mixture with detailed chemistry.. , 2011, , .		2
74	Thermal and hydraulic effects of coke deposit in hydrocarbon pyrolysis process.. , 2011, , .		2
75	High-End Experiments on Regenerative Cooling: Test Bench Design. , 2015, , .		2
76	Experimental Investigation of Fuel Cooled Combustor. , 2016, , .		2
77	Effect of voltage on the characteristics of magnesium-lanthanum deposits synthesized by an electrodeposition process. Materials Chemistry and Physics, 2017, 191, 70-74.	4.0	2
78	Regenerative Cooling Efficiency of Several Synthetic and Jet Fuels and Preliminary Combustion-Pyrolysis Coupling. , 2010, , .		1
79	Benchmark of Experimental Determination methods of Gas Permeabilities.. , 2011, , .		1
80	Pyrolysis in Porous Media: Numerical model and parametric study.. , 2012, , .		1
81	Modeling the spatio-temporal evolution of permeability during coking of porous material. , 2015, , .		1
82	Effect of Flow Configuration on Darcian and Forchheimer Permeabilities Determination in a Porous Composite Tube. , 2015, , .		1
83	Experimental Investigation of a Fuel Cooled Combustor: Cooling Efficiency and Coke Formation. , 2017, , .		1
84	Experimental Determination of Fluid Flow Parameters to Study Permeation Process Inside a Porous Channel. Lecture Notes in Mechanical Engineering, 2019, , 277-284.	0.4	1
85	Indirect Infra-Red Determination of Darcian permeability for cooling applications.. , 2011, , .		0
86	Methane Pyrolysis: literature survey and comparisons of available data for use in numerical simulations. , 2013, , .		0
87	Methodologies for Detailed Chemistry Computation, Application to Hybrid Rocket Combustion Chamber Simulations. , 2013, , .		0
88	Micro and Full-Scale Experiments on Hybrid Rocket Fuel and Prelude to Hybrid Rocket Combustor Simulations. , 2013, , .		0
89	Firing tests of hybrid engine with varying oxidizer nature and operating conditions. , 2013, , .		0
90	Firing tests of hybrid engine with varying oxidiser nature and operating conditions. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Aerospace Engineering, 2014, 228, 755-765.	1.3	0