George M Bollas

List of Publications by Year
in descending order

69	1,763	201674	289244
papers	citations	27 h-index	40 g-index

71	71	71	1753
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Inference of faults through symbolic regression of system data. Computers and Chemical Engineering, 2022, 157, 107619.	3.8	7
2	In Situ Studies of Single-Nanoparticle-Level Nickel Thermal Oxidation: From Early Oxide Nucleation to Diffusion-Balanced Oxide Thickening. ACS Nano, 2022, 16, 6468-6479.	14.6	8
3	Hybrid data-driven and model-informed online tool wear detection in milling machines. Journal of Manufacturing Systems, 2022, 63, 329-343.	13.9	22
4	Physics-based modeling and information-theoretic sensor and settings selection for tool wear detection in precision machining. Journal of Manufacturing Processes, 2022, 81, 127-140.	5.9	12
5	Sensor Selection Embedded in Active Fault Diagnosis Algorithms. IEEE Transactions on Control Systems Technology, 2021, 29, 593-606.	5.2	13
6	Fischer-tropsch synthesis in monolith catalysts coated with hierarchical ZSM-5. Applied Catalysis B: Environmental, 2021, 284, 119719.	20.2	23
7	Design and operation of a multi-stage reactor system for chemical looping combustion process. Fuel Processing Technology, 2021, 215, 106748.	7.2	12
8	Classification and regression models of audio and vibration signals for machine state monitoring in precision machining systems. Journal of Manufacturing Systems, 2021, 61, 45-53.	13.9	39
9	Thermodynamic feasibility analysis of distributed chemical looping ammonia synthesis. Chemical Engineering Journal, 2021, 426, 131421.	12.7	18
10	Sensor Fusion and Inferential Sensing for Fault Detection and Isolation in Uncertain Systems. , 2021, , .		1
11	Optimal test and sensor selection for active fault diagnosis using integer programming. Journal of Process Control, 2020, 92, 202-211.	3.3	9
12	Least-Squares- and Information-Theory-Based Inferential Sensor Design for Fault Diagnostics. , 2020, , .		1
13	A computational fluid dynamics model to predict performance of hollow fiber membrane modules in forward osmosis. Journal of Membrane Science, 2020, 603, 117973.	8.2	19
14	Design and Scheduling of Semibatch Chemical-Looping Reactors. Industrial & Engineering Chemistry Research, 2020, 59, 6994-7006.	3.7	10
15	Symbolic regression of uncertainty-resilient inferential sensors for fault diagnostics. IFAC-PapersOnLine, 2020, 53, 11446-11451.	0.9	1
16	Sensor network design for smart manufacturing â€“ Application on precision machining. IFAC-PapersOnLine, 2020, 53, 11440-11445.	0.9	3
17	Analysis of transient data in test designs for active fault detection and identification. Computers and Chemical Engineering, 2019, 122, 93-104.	3.8	11
18	Optimal Sensor Selection for Active Fault Diagnosis using Test Information Criteria. IFAC-PapersOnLine, 2019, 52, 382-387.	0.9	0

#	Article	IF	Citations
19	Semi-infinite programming for global guarantees of robust fault detection and isolation in safety-critical systems. Computers and Chemical Engineering, 2019, 126, 218-230.	3.8	9
20	Active fault diagnosis for uncertain systems using optimal test designs and detection through classification. ISA Transactions, 2019, 93, 354-369.	5.7	22
21	Optimal design of combined cycle power plants with fixedâ€bed chemicalâ€looping combustion reactors. AICHE Journal, 2019, 65, e16516.	3.6	6
22	Active Fault Identification by Optimization of Test Designs. IEEE Transactions on Control Systems Technology, 2019, 27, 2484-2498.	5.2	13
23	Optimal Selection of Tests for Active Fault Diagnosis Using Integer Programming. Computer Aided Chemical Engineering, 2019, , 335-340.	0.5	0
24	Gasoline selective Fischer-Tropsch synthesis in structured bifunctional catalysts. Applied Catalysis B: Environmental, 2018, 235, 92-102.	20.2	55
25	Nickel impregnated mesoporous USY zeolites for hydrodeoxygenation of anisole. Microporous and Mesoporous Materials, 2018, 261, 18-28.	4.4	47
26	Two-stage catalytic fast hydropyrolysis of biomass for the production of drop-in biofuel. Fuel, 2018, 216, 160-170.	6.4	37
27	Design of Built-In Tests for Active Fault Detection and Isolation of Discrete Faults. IEEE Access, 2018, 6, 50959-50973.	4.2	11
28	Learning Stable Nonlinear Dynamical Systems with External Inputs using Gaussian Mixture Models. , 2018, , .		4
29	Dynamic Optimization and Control of Chemical Looping Combustion Combined Cycle Power Plants. IFAC-PapersOnLine, 2018, 51, 845-850.	0.9	0
30	Approaches for Creation and Evaluation of Computationally Efficient Thermofluid System Models. IFAC-PapersOnLine, 2018, 51, 868-873.	0.9	0
31	Dynamic Optimization of a Subcritical Steam Power Plant Under Time-Varying Power Load. Processes, 2018, 6, 114.	2.8	13
32	Efficiency Analysis of Chemical-looping Fixed Bed Reactors integrated in Combined Cycle Power Plants. Computer Aided Chemical Engineering, 2018, 44, 2389-2394.	0.5	0
33	Active Fault Diagnosis with Sensor Selection in a Diesel Engine Air Handling System. , 2018, , .		0
34	Design of Built-In Tests for Robust Active Fault Detection and Isolation of Discrete Faults in Uncertain Systems. , 2018, , .		0
35	Dynamic modeling, simulation and optimization of a subcritical steam power plant. Part I: Plant model and regulatory control. Energy Conversion and Management, 2017, 145, 324-334.	9.2	41
36	Supervisory Control for Resilient Chiller Plants Under Condenser Fouling. IEEE Access, 2017, 5, 14028-14046.	4.2	11

#	Article	IF	Citations
37	Development, validation, and assessment of a high fidelity chilled water plant model. Applied Thermal Engineering, 2017, 111, 477-488.	6.0	10
38	Bifunctional Niâ€ZSMâ€5 Catalysts for the Pyrolysis and Hydropyrolysis of Biomass. Energy Technology, 2017, 5, 172-182.	3.8	34
39	Active Fault Detection and Identification using Transient Data. Computer Aided Chemical Engineering, 2017, , 1687-1692.	0.5	0
40	Model Reduction by Term Elimination and Optimal Selection. Computer Aided Chemical Engineering, 2017, 40, 277-282.	0.5	1
41	Modelâ€based analysis of chemicalâ€looping combustion experiments. Part I: Structural identifiability of kinetic models for NiO reduction. AICHE Journal, 2016, 62, 2419-2431.	3.6	34
42	Modelâ€based analysis of chemicalâ€looping combustion experiments. Part II: Optimal design of CH₄â€NiO reduction experiments. AICHE Journal, 2016, 62, 2432-2446.	3.6	33
43	Chemical-looping combustion in a reverse-flow fixed bed reactor. Energy, 2016, 102, 669-681.	8.8	31
44	Conversion of Polyethylene Terephthalate Based Waste Carpet to Benzene-Rich Oils through Thermal, Catalytic, and Catalytic Steam Pyrolysis. ACS Sustainable Chemistry and Engineering, 2016, 4, 2852-2860.	6.7	79
45	Built-in Test Design for Fault Detection and Isolation in an Aircraft Environmental Control System**This work was sponsored by the United Technologies Corporation Institute for Advanced Systems Engineering (UTC-IASE) of the University of Connecticut. Any opinions expressed herein are those of the authors and do not represent those of the sponsor.. IFAC-PapersOnLine, 2016, 49, 7-12.	0.9	4
46	Dynamic optimization of fixed bed chemical-looping combustion processes. Energy, 2016, 112, 1107-1119.	8.8	39
47	Dynamic optimization of fixed bed chemical-looping combustion systems integrated in thermal power plants. IFAC-PapersOnLine, 2016, 49, 115-120.	0.9	2
48	Dynamic Simulation of Fixedâ€Bed Chemicalâ€Looping Combustion Reactors Integrated in Combined Cycle Power Plants. Energy Technology, 2016, 4, 1209-1220.	3.8	16
49	The effect of ZSM-5 catalyst support in catalytic pyrolysis of biomass and compounds abundant in pyrolysis bio-oils. Journal of Analytical and Applied Pyrolysis, 2016, 122, 7-12.	5.5	41
50	Coke formation of model compounds relevant to pyrolysis bio-oil over ZSM-5. Applied Catalysis A: General, 2016, 513, 67-81.	4.3	83
51	High-Pressure Chemical-Looping of Methane and Synthesis Gas with Ni and Cu Oxygen Carriers. Energy & Fuels, 2016, 30, 504-514.	5.1	31
52	Optimal design of tests for heat exchanger fouling identification. Applied Thermal Engineering, 2016, 95, 382-393.	6.0	45
53	Dynamic parametric sensitivity optimization using simultaneous discretization in JModelica.org. , 2015, , .		0
54	Model-assisted analysis of fluidized bed chemical-looping reactors. Chemical Engineering Science, 2015, 134, 619-631.	3.8	16

#	Article	IF	Citations
55	The effect of temperature, heating rate, and ZSM-5 catalyst on the product selectivity of the fast pyrolysis of spent coffee grounds. RSC Advances, 2015, 5, 29252-29261.	3.6	32
56	Investigation of in situ and ex situ catalytic pyrolysis of miscanthus Ã— giganteus using a PyGCâ€“MS microsystem and comparison with a bench-scale spouted-bed reactor. Bioresource Technology, 2015, 191, 187-196.	9.6	99
57	Continuous regime of chemical-looping combustion (CLC) and chemical-looping with oxygen uncoupling (CLOU) reactivity of CuO oxygen carriers. Applied Catalysis B: Environmental, 2015, 166-167, 132-144.	20.2	24
58	Heterogeneous modeling of chemical-looping combustion. Part 2: Particle model. Chemical Engineering Science, 2014, 113, 116-128.	3.8	43
59	Kinetics of NiO reduction by H2 and Ni oxidation at conditions relevant to chemical-looping combustion and reforming. International Journal of Hydrogen Energy, 2014, 39, 8535-8556.	7.1	88
60	Catalytic pyrolysis of miscanthus Ã— giganteus in a spouted bed reactor. Bioresource Technology, 2014, 169, 188-197.	9.6	81
61	Catalyzed production of biodiesel and bio-chemicals from brown grease using Ionic Liquid functionalized ordered mesoporous polymer. Applied Energy, 2014, 129, 112-122.	10.1	51
62	Overview of Chemical-Looping Reduction in Fixed Bed and Fluidized Bed Reactors Focused on Oxygen Carrier Utilization and Reactor Efficiency. Aerosol and Air Quality Research, 2014, 14, 559-571.	2.1	32
63	Heterogeneous modeling of chemical-looping combustion. Part 1: Reactor model. Chemical Engineering Science, 2013, 104, 233-249.	3.8	62
64	Characteristics and origin of char and coke from fast and slow, catalytic and thermal pyrolysis of biomass and relevant model compounds. Green Chemistry, 2013, 15, 3214.	9.0	120
65	Model-based analysis of bench-scale fixed-bed units for chemical-looping combustion. Chemical Engineering Journal, 2013, 233, 331-348.	12.7	44
66	Bilevel optimization formulation for parameter estimation in liquidâ€“liquid phase equilibrium problems. Chemical Engineering Science, 2009, 64, 548-559.	3.8	58
67	Bilevel optimization formulation for parameter estimation in vaporâ€“liquid(â€“liquid) phase equilibrium problems. Chemical Engineering Science, 2009, 64, 1768-1783.	3.8	48
68	Model and Parameter Identification in Phase Equilibria. Computer Aided Chemical Engineering, 2009, 26, 597-601.	0.5	3
69	Feed conversion targeting in an FCC pilot plant using a non-linear MPC strategy. Proceedings of the American Control Conference, 2007, , .	0.0	0