Vincent G Gomes

List of Publications by Year in descending order

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135 papers 5,780 citations

94269 37 h-index 74 g-index

135 all docs

135
docs citations

135 times ranked 7667 citing authors

#	Article	IF	CITATIONS
1	Hybrid nanostructures based on titanium dioxide for enhanced photocatalysis. Applied Catalysis A: General, 2015, 489, 1-16.	2.2	655
2	Edge-enriched graphene quantum dots for enhanced photo-luminescence and supercapacitance. Nanoscale, 2014, 6, 11988-11994.	2.8	406
3	Hierarchical assembly of graphene/polyaniline nanostructures to synthesize free-standing supercapacitor electrode. Composites Science and Technology, 2014, 98, 1-8.	3.8	346
4	Carbon functionalized TiO ₂ nanofibers for high efficiency photocatalysis. Materials Research Express, 2014, 1, 015012.	0.8	317
5	High-yield aqueous phase exfoliation of graphene for facile nanocomposite synthesis via emulsion polymerization. Journal of Colloid and Interface Science, 2013, 410, 43-51.	5. O	259
6	Engineering carbon quantum dots for photomediated theranostics. Nano Research, 2018, 11, 1-41.	5.8	216
7	Polymer brush synthesis on surface modified carbon nanotubes via in situ emulsion polymerization. Colloid and Polymer Science, 2016, 294, 1599-1610.	1.0	207
8	Grafting carbon nanotubes directly onto carbon fibers for superior mechanical stability: Towards next generation aerospace composites and energy storage applications. Carbon, 2016, 96, 701-710.	5.4	205
9	Pressure swing adsorption for carbon dioxide sequestration from exhaust gases. Separation and Purification Technology, 2002, 28, 161-171.	3.9	179
10	Carbon quantum dot-based composites for energy storage and electrocatalysis: Mechanism, applications and future prospects. Nano Energy, 2019, 66, 104093.	8.2	174
11	Doped graphene/Cu nanocomposite: A high sensitivity non-enzymatic glucose sensor for food. Food Chemistry, 2017, 221, 751-759.	4.2	112
12	Activated carbon from chickpea husk by chemical activation with K2CO3: preparation and characterization. Microporous and Mesoporous Materials, 2002, 55, 63-68.	2.2	106
13	High efficiency supercapacitor derived from biomass based carbon dots and reduced graphene oxide composite. Journal of Electroanalytical Chemistry, 2019, 832, 87-96.	1.9	105
14	Coal derived carbon nanomaterials – Recent advances in synthesis and applications. Applied Materials Today, 2018, 12, 342-358.	2.3	101
15	3D printing of biopolymer nanocomposites for tissue engineering: Nanomaterials, processing and structure-function relation. European Polymer Journal, 2019, 121, 109340.	2.6	89
16	Hybrid Ni/NiO composite with N-doped activated carbon from waste cauliflower leaves: A sustainable bifunctional electrocatalyst for efficient water splitting. Carbon, 2020, 157, 515-524.	5.4	80
17	Operation of semi-batch emulsion polymerisation reactors: Modelling, validation and effect of operating conditions. Chemical Engineering Science, 2002, 57, 2955-2969.	1.9	75
18	Poly (vinylidene fluoride)/polyaniline/MWCNT nanocomposite ultrafiltration membrane for natural organic matter removal. Separation and Purification Technology, 2018, 190, 143-155.	3.9	74

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19	Preparation and characterization of high-specific-surface-area activated carbons from K2CO3-treated waste polyurethane. Journal of Colloid and Interface Science, 2005, 281, 437-443.	5.0	73
20	Ni- and P-doped carbon from waste biomass: A sustainable multifunctional electrode for oxygen reduction, oxygen evolution and hydrogen evolution reactions. Electrochimica Acta, 2019, 314, 49-60.	2.6	71
21	Two-photon active nucleus-targeting carbon dots: enhanced ROS generation and photodynamic therapy for oral cancer. Nanoscale, 2020, 12, 20598-20603.	2.8	68
22	High performance hybrid supercapacitor based on doped zucchini-derived carbon dots and graphene. Materials Today Energy, 2019, 12, 198-207.	2.5	67
23	Selenium in sediments, pore waters and benthic infauna of Lake Macquarie, New South Wales, Australia. Marine Environmental Research, 1999, 47, 491-508.	1.1	66
24	Synthesizing activated carbons from resins by chemical activation with K2CO3. Carbon, 2002, 40, 2747-2752.	5. 4	64
25	Nitrogen doped graphene via thermal treatment of composite solid precursors as a high performance supercapacitor. RSC Advances, 2015, 5, 30679-30686.	1.7	64
26	Collagen derived carbon quantum dots for cell imaging in 3D scaffolds via two-photon spectroscopy. Carbon, 2018, 131, 238-245.	5.4	64
27	Two-photon excitation triggers combined chemo-photothermal therapy via doped carbon nanohybrid dots for effective breast cancer treatment. Chemical Engineering Journal, 2017, 330, 651-662.	6.6	62
28	Excitation-independent carbon dot probes for exogenous and endogenous Fe3+ sensing in living cells: Fluorescence lifetime and sensing mechanism. Sensors and Actuators B: Chemical, 2019, 285, 145-155.	4.0	62
29	Coalseam methane recovery by vacuum swing adsorption. Separation and Purification Technology, 2001, 24, 189-196.	3.9	60
30	Interactions at scaffold interfaces: Effect of surface chemistry, structural attributes and bioaffinity. Materials Science and Engineering C, 2019, 105, 110078.	3.8	60
31	Synthesizing polystyrene/carbon nanotube composites by emulsion polymerization with non-covalent and covalent functionalization. Carbon, 2010, 48, 2925-2933.	5.4	58
32	Selenium contamination, redistribution and remobilisation in sediments of Lake Macquarie, NSW. Organic Geochemistry, 1999, 30, 1287-1300.	0.9	46
33	Advanced modelling in performance optimization for reactive separation in industrial CO2 removal. Separation and Purification Technology, 2008, 63, 107-115.	3.9	45
34	Aerogel from fruit biowaste produces ultracapacitors with high energy density and stability. Journal of Energy Storage, 2020, 27, 101152.	3.9	45
35	In-situ direct grafting of graphene quantum dots onto carbon fibre by low temperature chemical synthesis for high performance flexible fabric supercapacitor. Materials Today Communications, 2017, 10, 112-119.	0.9	44
36	Conjugated carbon quantum dots: Potent nano-antibiotic for intracellular pathogens. Journal of Colloid and Interface Science, 2019, 552, 378-387.	5.0	42

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37	Metal-based nanomaterials for efficient CO2 electroreduction: Recent advances in mechanism, material design and selectivity. Nano Energy, 2020, 78, 105311.	8.2	42
38	Fractal dimensions of activated carbons prepared from lignin by chemical activation. Carbon, 2002, 40, 630-632.	5 . 4	38
39	On-line multi-variable predictive control of molar mass and particle size distributions in free-radical emulsion copolymerization. Chemical Engineering Science, 2005, 60, 6596-6606.	1.9	38
40	Nonenzymatic multispecies sensor based on Cu-Ni nanoparticle dispersion on doped graphene. Electrochimica Acta, 2017, 224, 295-305.	2.6	34
41	An injection molding study. Part I: Melt and barrel temperature dynamics. Polymer Engineering and Science, 1986, 26, 854-866.	1.5	33
42	lodine doped composite with biomass carbon dots and reduced graphene oxide: a versatile bifunctional electrode for energy storage and oxygen reduction reaction. Journal of Materials Chemistry A, 2019, 7, 22650-22662.	5.2	33
43	Advanced modelling and optimal operating strategy in emulsion copolymerization: Application to styrene/MMA system. Chemical Engineering Science, 2005, 60, 2795-2813.	1.9	31
44	Abalone Hemocyanin Blocks the Entry of Herpes Simplex Virus 1 into Cells: a Potential New Antiviral Strategy. Antimicrobial Agents and Chemotherapy, 2016, 60, 1003-1012.	1.4	31
45	Inferential conversion monitoring and control in emulsion polymerisation through calorimetric measurements. Chemical Engineering Journal, 2002, 89, 37-45.	6.6	29
46	Chemical Engineering Curriculum Renewal. Education for Chemical Engineers, 2006, 1, 116-125.	2.8	29
47	Steam reforming for hydrogen generation with in situ adsorptive separation. International Journal of Hydrogen Energy, 2009, 34, 343-355.	3.8	29
48	Formulation of abalone hemocyanin with high antiviral activity and stability. European Journal of Pharmaceutical Sciences, 2014, 53, 77-85.	1.9	27
49	Coâ€Doping of Activated Graphene for Synergistically Enhanced Electrocatalytic Oxygen Reduction Reaction. ChemSusChem, 2015, 8, 4040-4048.	3.6	22
50	In-Plane Diffusivity of Moisture in Paper. Drying Technology, 1997, 15, 265-294.	1.7	21
51	Doping reduced graphene oxide and graphitic carbon nitride hybrid for dual functionality: High performance supercapacitance and hydrogen evolution reaction. Journal of Electroanalytical Chemistry, 2020, 856, 113503.	1.9	21
52	Facilitating process control teaching and learning in a virtual laboratory environment. Computer Applications in Engineering Education, 2002, 10, 79-87.	2.2	20
53	Two-Photon Active Boron Nitride Quantum Dots for Multiplexed Imaging, Intracellular Ferric Ion Biosensing, and pH Tracking in Living Cells. ACS Applied Bio Materials, 2018, 1, 975-984.	2.3	19
54	Online control of molar mass and particle-size distributions in emulsion polymerization. AICHE Journal, 2006, 52, 1770-1779.	1.8	18

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55	Electrical impedance spectroscopy for determining critical micelle concentration of ionic emulsifiers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 441, 195-203.	2.3	18
56	Additive-Free All-Carbon Composite: A Two-Photon Material System for Nanopatterning of Fluorescent Sub-Wavelength Structures. ACS Nano, 2021, 15, 14193-14206.	7.3	17
57	Analysis of shear-induced coagulation in an emulsion polymerisation reactor using computational fluid dynamics. Chemical Engineering Science, 2005, 60, 2005-2015.	1.9	16
58	The Influence of Xanthateâ€Based Transfer Agents on Styrene Emulsion Polymerization: Mathematical Modeling and Model Validation. Macromolecular Reaction Engineering, 2008, 2, 58-79.	0.9	16
59	Tuning graphene for energy and environmental applications: Oxygen reduction reaction and greenhouse gas mitigation. Journal of Power Sources, 2016, 328, 472-481.	4.0	16
60	Optimal operating strategies for emulsion terpolymerisation. Chemical Engineering Science, 2008, 63, 4257-4268.	1.9	15
61	Superhydrophilic 3D-printed scaffolds using conjugated bioresorbable nanocomposites for enhanced bone regeneration. Chemical Engineering Journal, 2022, 445, 136639.	6.6	15
62	Conjugated ternary doped carbon dots from vitamin B derivative: Multispectral nanoprobes for targeted melanoma bioimaging and photosensitization. Journal of Luminescence, 2020, 217, 116811.	1.5	14
63	A review on graphene quantum dots, an emerging luminescent carbon nanolights: Healthcare and Environmental applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 278, 115633.	1.7	14
64	RAFT with Bulk and Solution Polymerization: An Approach to Mathematical Modelling and Validation. Polymer-Plastics Technology and Engineering, 2007, 46, 1103-1115.	1.9	13
65	Selenium associations in estuarine sediments: Redox effects. Water, Air, and Soil Pollution, 1997, 99, 275-282.	1.1	12
66	A periodic separating reactor for propene metathesis. Chemical Engineering Science, 2002, 57, 3839-3850.	1.9	12
67	The influence of geometrical characteristics on the photocatalytic activity of TiO2 nanotube arrays for degradation of refractory organic pollutants in wastewater. Water Science and Technology, 2015, 71, 1301-1309.	1.2	12
68	Nickelâ€Nanoparticles on Doped Graphene: A Highly Active Electrocatalyst for Alcohol and Carbohydrate Electrooxidation for Energy Production. ChemElectroChem, 2018, 5, 3799-3808.	1.7	12
69	Online polymer molecular weight and conversion monitoring via calorimetric measurements in RAFT emulsion polymerization. Polymer International, 2009, 58, 1427-1434.	1.6	11
70	Transitional emulsion polymerisation: Zero-one to pseudo-bulk. Chemical Engineering Science, 2011, 66, 4251-4260.	1.9	11
71	Optimal Operating Strategies for Emulsion Polymerization with Chain Transfer Agent. Industrial & Engineering Chemistry Research, 2014, 53, 7526-7537.	1.8	11
72	Nanocomposites of carbon nanotubes and photon upconversion nanoparticles for enhanced optical limiting performance. Journal of Materials Chemistry C, 2018, 6, 7311-7316.	2.7	11

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73	<scp>3D</scp> â€printed bioresorbable poly(lacticâ€coâ€glycolic acid) and quantumâ€dot nanocomposites: Scaffolds for enhanced bone mineralization and inbuilt coâ€monitoring. Journal of Biomedical Materials Research - Part A, 2022, 110, 916-927.	2.1	11
74	Online monitoring of emulsion polymerization using electrical impedance spectroscopy. Polymer International, 2015, 64, 66-75.	1.6	10
75	Franz cells for facile biosensor evaluation: A case of HRP/SWCNT-based hydrogen peroxide detection via amperometric and wireless modes. Biosensors and Bioelectronics, 2021, 191, 113420.	5.3	10
76	Impingement Drying of Paper. Drying Technology, 1995, 13, 1331-1344.	1.7	9
77	Polymer chain extension in semibatch emulsion polymerization with RAFTâ€based transfer agent: The influence of reaction conditions on polymerization rate and product properties. Journal of Applied Polymer Science, 2009, 114, 2356-2372.	1.3	9
78	Additive manufacturing of highly fluorescent organic 3D-metastructures at sub-wavelength resolution. Materials Today Physics, 2021, 20, 100434.	2.9	9
79	Miniemulsion Polymerisation Via Reversible Addition Fragmentation Chain Transfer in Pseudoâ€Bulk Regime. Macromolecular Reaction Engineering, 2011, 5, 303-315.	0.9	8
80	Thermal denaturation and protein stability analysis of Haliotis rubra hemocyanin. Journal of Thermal Analysis and Calorimetry, 2016, 123, 2499-2505.	2.0	8
81	3D printed nanocomposites for tailored cardiovascular tissue constructs: A minireview. Materialia, 2021, 19, 101184.	1.3	8
82	Dynamics of propene metathesis: Physisorption and diffusion in heterogeneous catalysis. AICHE Journal, 1996, 42, 204-213.	1.8	7
83	Through Air Drying Characteristics of Machine-Formed Semi-Permeable Paper. Drying Technology, 1997, 15, 341-369.	1.7	7
84	A framework for modeling particle size effects in emulsion polymerization systems using computational fluid dynamics linked to a detailed population balance model. Computer Aided Chemical Engineering, 2006, 21, 551-556.	0.3	7
85	Distribution and Characterization of Rhogocyte Cell Types in the Mantle Tissue of Haliotis laevigata. Marine Biotechnology, 2015, 17, 168-179.	1.1	7
86	Influence of chain transfer agent on structure/property relation of polymer nanocomposites with functionalized carbon nanotubes. Composites Part A: Applied Science and Manufacturing, 2017, 101, 353-359.	3.8	7
87	Bioresorbable poly(lactic acid) and organic quantum dot-based nanocomposites: luminescent scaffolds for enhanced osteogenesis and real-time monitoring. Journal of Nanostructure in Chemistry, 2022, 12, 951-962.	5.3	7
88	Fixedâ€Bed adsorber dynamics in binary physisorptionâ€diffusion. Canadian Journal of Chemical Engineering, 1994, 72, 622-630.	0.9	6
89	Inferential Conversion and Composition Monitoring via Microcalorimetric Measurements in Emulsion Terpolymerization. Polymer-Plastics Technology and Engineering, 2007, 47, 13-22.	1.9	6
90	Selective Oxidation of Ethylene in an Industrial Packed-Bed Reactor: Modelling, Analysis and Optimization. International Journal of Chemical Reactor Engineering, 2009, 7, .	0.6	6

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91	Online model-based control of an emulsion terpolymerisation process. Chemical Engineering Science, 2009, 64, 2076-2087.	1.9	6
92	Modelling and Optimisation of an Industrial Ethylene Oxide Reactor. Chemical Product and Process Modeling, 2009, 4, .	0.5	6
93	Miniemulsion polymerisation in pseudo-bulk regime: Mathematical modelling, prediction and optimal strategy of operation. Chemical Engineering Science, 2011, 66, 220-226.	1.9	6
94	Structure and electrochemical properties of polystyrene/CNT nanocomposites. Journal of Solid State Electrochemistry, 2015, 19, 3145-3156.	1.2	6
95	<scp>3Dâ€printed polymer</scp> nanocomposites with carbon quantum dots for enhanced properties and in situ monitoring of cardiovascular stents. Polymers for Advanced Technologies, 2022, 33, 980-990.	1.6	6
96	Nonlinear Sorption Isotherm of Zeolites by Frequency Response Analysis. Industrial & Engineering Chemistry Research, 1996, 35, 1475-1479.	1.8	5
97	Calorimetry for Inferential Conversion Monitoring in Emulsion Copolymerization Reactors. International Journal of Chemical Reactor Engineering, 2006, 4, .	0.6	5
98	Online inferential product attribute estimation for optimal operation of emulsion terpolymerisation: Application to styrene/MMA/MA. Chemical Engineering Science, 2007, 62, 4420-4438.	1.9	5
99	Particle Size Limits of RAFT Living Emulsion Polymerization, with Xanthate-Based Transfer Agent. Polymer-Plastics Technology and Engineering, 2013, 52, 854-861.	1.9	5
100	Characterizing colloidal behavior of non-ionic emulsifiers in non-polar solvents using electrical impedance spectroscopy. Colloid and Polymer Science, 2014, 292, 2695-2705.	1.0	5
101	Operating strategies for acid phase digestion: an industrial case study. Water and Environment Journal, 2016, 30, 227-234.	1.0	5
102	Engineering an Anti-Graffiti System: A Study in Industrial Product Design. Chemical Engineering and Technology, 2004, 27, 874-879.	0.9	4
103	Computer-Aided Knowledge-Based Monitoring and Diagnostic System for Emulsion Polymerization. Chemical Engineering Research and Design, 2007, 85, 1436-1446.	2.7	4
104	Advanced Monitoring and Control of Multiâ€monomer System in Emulsion Polymerization. Macromolecular Reaction Engineering, 2010, 4, 672-681.	0.9	4
105	Photoluminescence properties of silk–carbon quantum dots composites. Journal of Sol-Gel Science and Technology, 2023, 107, 170-177.	1.1	4
106	Optimal periodic control of the input into a heterogeneous catalytic reactor. Computers and Chemical Engineering, 1994, 18, 219-226.	2.0	3
107	Catalyst-Adsorbent Configurations in Enhancing Adsorptive Reactor Performance. International Journal of Chemical Reactor Engineering, 2007, 5, .	0.6	3
108	Block Copolymers From Living Emulsion Polymerization: Reactor Operating Strategies and Blocking Efficiency. Macromolecular Reaction Engineering, 2012, 6, 8-16.	0.9	3

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109	Enhanced silica nanocomposite via dual step functionalisation and in-situ polymerisation. International Journal of Nanotechnology, 2013, 10, 1078.	0.1	3
110	Computer Control for the Study of Reactor Dynamics. Instrumentation Science and Technology, 1992, 20, 183-199.	0.9	2
111	Periodic and nonperiodic dynamic responses for sorption diffusion and reaction in a Berty reactor. Industrial & Description of the second of t	1.8	2
112	The role of wave-net models in emulsion polymerisation. Powder Technology, 2002, 124, 212-218.	2.1	2
113	Enhanced Reactor Performance with Pressure and Vacuum Swing Reaction. International Journal of Chemical Reactor Engineering, 2004, 2, .	0.6	2
114	Online Inferential Measurement of Conversion and Molar Mass in Emulsion Polymerization Controlled by Chain Transfer. Industrial & Engineering Chemistry Research, 2012, 51, 1490-1497.	1.8	2
115	The influence of intermediate radical termination and fragmentation on controlled polymer synthesis via RAFT polymerization. Designed Monomers and Polymers, 2014, 17, 430-437.	0.7	2
116	Non-enzymatic multispecies sensing of key wine attributes with nickel nanoparticles on N-doped graphene composite. Journal of Solid State Electrochemistry, 2020, 24, 45-56.	1.2	2
117	Time Proportioning Computer Control of Resistive Heating. Instrumentation Science and Technology, 1987, 16, 447-466.	0.9	1
118	Strategies for optimisation and control of molecular weight and particle size distributions in emulsion polymerisation. Computer Aided Chemical Engineering, 2001, 9, 823-828.	0.3	1
119	On-Line Optimal Control of Particle Size Distribution in Emulsion Polymerisation. Computer Aided Chemical Engineering, 2002, 10, 607-612.	0.3	1
120	A model-based framework for advanced optimal operation of polymerization processes: Application to emulsion copolymerization of styrene/MMA. Computer Aided Chemical Engineering, 2004, 18, 541-546.	0.3	1
121	Facilitating Problem-Based Learning Using Information and Communications Technology. , 2006, , .		1
122	Monitoring inverse-phase emulsion polymerization using electrical impedance spectroscopy. Polymer International, 2015, 64, 787-794.	1.6	1
123	Marine Glycoproteins: Processing, Characterization and Therapeutic Applications. Materials Today: Proceedings, 2016, 3, 3553-3558.	0.9	1
124	Lipoprotein-induced cell growth and hemocyanin biosynthesis in rhogocytes. Cell and Tissue Research, 2022, 388, 359-371.	1.5	1
125	Comments on "Moisture desorption in cellulosic materials". Industrial & Engineering Chemistry Research, 1993, 32, 1800-1800.	1.8	0
126	Selenium Associations in Estuarine Sediments: Redox Effects. Water, Air, and Soil Pollution, 1997, 99, 275-282.	1,1	0

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127	Reactor Operating Strategy and Secondary Nucleation in Emulsion Polymerization. International Journal of Chemical Reactor Engineering, 2004, 2, .	0.6	O
128	An expert system for a semi-batch pilot scale emulsion copolymerisation facility. Computer Aided Chemical Engineering, 2005, 20, 1495-1500.	0.3	0
129	Advanced Modelling for Investigating the Effects of Reactor Operation on Controlled Living Emulsion Polymerization. Chemical Product and Process Modeling, 2009, 4, .	0.5	O
130	Adsorptive separation inÂthe enhancement ofÂbutene dehydrogenation. Adsorption, 2009, 15, 365-380.	1.4	0
131	Optimizing packing heterogeneity for sorption enhanced metathesis reaction. Adsorption, 2014, 20, 701-711.	1.4	O
132	Block Copolymer Composite Synthesis in a Mechanistic Approach. Polymer-Plastics Technology and Engineering, 2015, 54, 1679-1693.	1.9	0
133	Greenhouse gas removal from industrial effluents: The role of inorganic additives. Canadian Journal of Chemical Engineering, 2019, 97, 668-675.	0.9	0
134	Resid Conversion., 2005,, 2655-2662.		0
135	Ultrafine Ni-Based Nanomaterials on Hierarchically Porous Carbon from Biomass: An Efficient Bifunctional Electrocatalyst for Water Splitting. ECS Meeting Abstracts, 2020, MA2020-02, 2861-2861.	0.0	O