

Mariano Asteasuain

List of Publications by Year in descending order

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papers

413
citations

687363

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docs citations

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times ranked

263
citing authors

#	ARTICLE	IF	CITATIONS
1	Simultaneous process and control system design for grade transition in styrene polymerization. <i>Chemical Engineering Science</i> , 2006, 61, 3362-3378.	3.8	42
2	Modeling and optimization of a high-pressure ethylene polymerization reactor using gPROMS. <i>Computers and Chemical Engineering</i> , 2008, 32, 396-408.	3.8	30
3	“Living” Free Radical Polymerization in Tubular Reactors. I. Modeling of the Complete Molecular Weight Distribution Using Probability Generating Functions. <i>Macromolecular Reaction Engineering</i> , 2007, 1, 622-634.	1.5	26
4	Modeling of RAFT Polymerization Processes Using an Efficient Monte Carlo Algorithm in Julia. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 8534-8547.	3.7	25
5	Mathematical Modeling of Bivariate Polymer Property Distributions Using 2D Probability Generating Functions, I “ Numerical Inversion Methods. <i>Macromolecular Theory and Simulations</i> , 2010, 19, 342-359.	1.4	23
6	Molecular weight distributions in styrene polymerization with asymmetric bifunctional initiators. <i>Polymer</i> , 2004, 45, 321-335.	3.8	21
7	Modeling of RAFT Polymerization using Probability Generating Functions. Detailed Prediction of Full Molecular Weight Distributions and Sensitivity Analysis. <i>Macromolecular Reaction Engineering</i> , 2014, 8, 781-795.	1.5	20
8	Mathematical Modeling of Bivariate Distributions of Polymer Properties Using 2D Probability Generating Functions. Part II: Transformation of Population Mass Balances of Polymer Processes. <i>Macromolecular Theory and Simulations</i> , 2013, 22, 273-308.	1.4	19
9	Theoretical Analysis of Nitroxide-Mediated Copolymerization of Styrene and Methylstyrene under Different Operating Policies and Reactor Designs. <i>Macromolecular Reaction Engineering</i> , 2014, 8, 260-281.	1.5	17
10	Simultaneous Design and Control of a Semibatch Styrene Polymerization Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2004, 43, 5233-5247.	3.7	16
11	Integration of control aspects and uncertainty in the process design of polymerization reactors. <i>Chemical Engineering Journal</i> , 2007, 131, 135-144.	12.7	16
12	“Living” Radical Polymerization in Tubular Reactors, 2 “ Process Optimization for Tailor-Made Molecular Weight Distributions. <i>Macromolecular Reaction Engineering</i> , 2008, 2, 414-421.	1.5	15
13	Prediction of the full molecular weight distribution in RAFT polymerization using probability generating functions. <i>Computers and Chemical Engineering</i> , 2014, 66, 214-220.	3.8	15
14	LDPE Production in Tubular Reactors: Comprehensive Model for the Prediction of the Joint Molecular Weight-Short (Long) Chain Branching Distributions. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 4412-4424.	3.7	14
15	High-Pressure Polymerization of Ethylene in Tubular Reactors: A Rigorous Dynamic Model Able to Predict the Full Molecular Weight Distribution. <i>Macromolecular Reaction Engineering</i> , 2009, 3, 398-411.	1.5	13
16	Mechanistic evaluation of hematin action as a horseradish peroxidase biomimetic on the 4-aminoantipyrine/phenol oxidation reaction. <i>Chemical Engineering Science</i> , 2015, 129, 249-259.	3.8	13
17	Prediction of molecular weight distributions in polymers using probability generating functions. <i>Canadian Journal of Chemical Engineering</i> , 2012, 90, 263-273.	1.7	12
18	Improved numerical inversion methods for the recovery of bivariate distributions of polymer properties from 2D probability generating function domains. <i>Computers and Chemical Engineering</i> , 2016, 94, 272-286.	3.8	12

#	ARTICLE	IF	CITATIONS
19	Modeling of the bivariate molecular weight distribution-copolymer composition distribution in RAFT copolymerization using probability generating functions. Computational Materials Science, 2017, 136, 280-296.	3.0	10
20	Unscented Transformation-Based Filters: Performance Comparison Analysis for the State Estimation in Polymerization Processes with Delayed Measurements. Macromolecular Reaction Engineering, 2011, 5, 278-293.	1.5	7
21	Graft Copolymers for Blend Compatibilization: Mathematical Modeling of the Grafting Process. Macromolecular Reaction Engineering, 2012, 6, 406-418.	1.5	7
22	Efficient modeling of distributions of polymer properties using probability generating functions and parallel computing. Computers and Chemical Engineering, 2019, 128, 261-284.	3.8	7
23	Mathematical Modeling of Molecular Weight Distributions in Vinyl Chloride Suspension Polymerizations Performed with a Bifunctional Initiator through Probability Generating Functions. Macromolecular Theory and Simulations, 2014, 23, 500-522.	1.4	6
24	Deterministic Approaches for Simulation of Nitroxide-Mediated Radical Polymerization. International Journal of Polymer Science, 2018, 2018, 1-16.	2.7	5
25	Catalytic Degradation of Polystyrene: Modeling of Molecular Weight Distribution. Macromolecular Reaction Engineering, 2011, 5, 243-253.	1.5	4
26	Comprehensive Mathematical Modeling of Controlled Radical Copolymerization in Tubular Reactors. Computer Aided Chemical Engineering, 2011, , 51-55.	0.5	4
27	Mathematical Modelling of Rheological Properties of Low-density Polyethylene Produced in High-Pressure Tubular Reactors. IFAC-PapersOnLine, 2021, 54, 378-382.	0.9	4
28	Prediction of the Full Molecular Weight Distribution in RAFT Polymerization using Probability Generating Functions. Computer Aided Chemical Engineering, 2013, 32, 859-864.	0.5	2
29	Efficient and robust state estimation: Application to a copolymerization process. Canadian Journal of Chemical Engineering, 2021, , .	1.7	2
30	Modeling Low-Density Polyethylene (LDPE) Production in Tubular Reactors: Connecting Polymerization Conditions with Polymer Microstructure and Rheological Behavior. Macromolecular Reaction Engineering, 0, , 2200003.	1.5	2
31	Explicit parametric controller for a batch polymerization system. Computer Aided Chemical Engineering, 2006, , 1215-1220.	0.5	1
32	Thermal decomposition reaction of pinacolone diperoxide: its use as radical initiator in the styrene polymerization. Polymer Bulletin, 2017, 74, 3545-3556.	3.3	1
33	Unscented Kalman Filter. Application of the robust approach to polymerization processes. Computer Aided Chemical Engineering, 2017, 40, 1477-1482.	0.5	1
34	Nonlinear State Estimation with Delayed Measurements. Application to Polymer Processes. Computer Aided Chemical Engineering, 2011, , 592-596.	0.5	1
35	Optimal operating policies for synthesizing tailor made gradient copolymers. Computer Aided Chemical Engineering, 2015, , 803-808.	0.5	0
36	High-Pressure Polymerization of Ethylene in Tubular Reactors: Prediction of the Bivariate Distributions of Molecular Weight-Branched with a Rigorous Reactor Model. Computer Aided Chemical Engineering, 2018, 44, 1447-1452.	0.5	0

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37	Full Bivariate MWD in RAFT Copolymerization using Probability Generating Functions. Computer Aided Chemical Engineering, 2014, , 211-216.	0.5	0