Mariano Asteasuain

List of Publications by Year
in descending order

37	413	687363 13	794594 19
papers	citations	h-index	g-index

37	37	37	263
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Efficient and robust state estimation: Application to a copolymerization process. Canadian Journal of Chemical Engineering, 2021, , .	1.7	2
2	Mathematical Modelling of Rheological Properties of Low-density Polyethylene Produced in High-Pressure Tubular Reactors. IFAC-PapersOnLine, 2021, 54, 378-382.	0.9	4
3	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
4	LDPE Production in Tubular Reactors: Comprehensive Model for the Prediction of the Joint Molecular Weight-Short (Long) Chain Branching Distributions. Industrial & Engineering Chemistry Research, 2019, 58, 4412-4424.	3.7	14
5	High-Pressure Polymerization of Ethylene in Tubular Reactors: Prediction of the Bivariate Distributions of Molecular Weight-Branches with a Rigorous Reactor Model. Computer Aided Chemical Engineering, 2018, 44, 1447-1452.	0.5	0
6	Deterministic Approaches for Simulation of Nitroxide-Mediated Radical Polymerization. International Journal of Polymer Science, 2018, 2018, 1-16.	2.7	5
7	Thermal decomposition reaction of pinacolone diperoxide: its use as radical initiator in the styrene polymerization. Polymer Bulletin, 2017, 74, 3545-3556.	3.3	1
8	Unscented Kalman Filter. Application of the robust approach to polymerization processes. Computer Aided Chemical Engineering, 2017, 40, 1477-1482.	0.5	1
9	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
10	Improved numerical inversion methods for the recovery of bivariate distributions of polymer properties from 2D probability generating function domains. Computers and Chemical Engineering, 2016, 94, 272-286.	3.8	12
11	Modeling of RAFT Polymerization Processes Using an Efficient Monte Carlo Algorithm in Julia. Industrial & Engineering Chemistry Research, 2016, 55, 8534-8547.	3.7	25
12	Optimal operating policies for synthesizing tailor made gradient copolymers. Computer Aided Chemical Engineering, 2015, , 803-808.	0.5	0
13	Mechanistic evaluation of hematin action as a horseradish peroxidase biomimetic on the 4-aminoantipyrine/phenol oxidation reaction. Chemical Engineering Science, 2015, 129, 249-259.	3.8	13
14	Modeling of RAFT Polymerization using Probability Generating Functions. Detailed Prediction of Full Molecular Weight Distributions and Sensitivity Analysis. Macromolecular Reaction Engineering, 2014, 8, 781-795.	1.5	20
15	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
16	Prediction of the full molecular weight distribution in RAFT polymerization using probability generating functions. Computers and Chemical Engineering, 2014, 66, 214-220.	3.8	15
17	Theoretical Analysis of Nitroxideâ€Mediated Copolymerization of Styrene and Î±â€Methylâ€Styrene under Different Operating Policies and Reactor Designs. Macromolecular Reaction Engineering, 2014, 8, 260-281.	1.5	17
18	Full Bivariate MWD in RAFT Copolymerization using Probability Generating Functions. Computer Aided Chemical Engineering, 2014, , 211-216.	0.5	0

#	Article	IF	Citations
19	Mathematical Modeling of Bivariate Distributions of Polymer Properties Using 2<scp>D</scp> Probability Generating Functions. Part <scp>II</scp>: Transformation of Population Mass Balances of Polymer Processes. Macromolecular Theory and Simulations, 2013, 22, 273-308.	1.4	19
20	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
21	Graft Copolymers for Blend Compatibilization: Mathematical Modeling of the Grafting Process. Macromolecular Reaction Engineering, 2012, 6, 406-418.	1.5	7
22	Prediction of molecular weight distributions in polymers using probability generating functions. Canadian Journal of Chemical Engineering, 2012, 90, 263-273.	1.7	12
23	Unscented Transformationâ€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
24	Catalytic Degradation of Polystyrene: Modeling of Molecular Weight Distribution. Macromolecular Reaction Engineering, 2011, 5, 243-253.	1.5	4
25	Comprehensive Mathematical Modeling of Controlled Radical Copolymerization in Tubular Reactors. Computer Aided Chemical Engineering, 2011, , 51-55.	0.5	4
26	Nonlinear State Estimation with Delayed Measurements. Application to Polymer Processes. Computer Aided Chemical Engineering, 2011, , 592-596.	0.5	1
27	Mathematical Modeling of Bivariate Polymer Property Distributions Using 2D Probability Generating Functions, 1 â€“ Numerical Inversion Methods. Macromolecular Theory and Simulations, 2010, 19, 342-359.	1.4	23
28	Highâ€Pressure Polymerization of Ethylene in Tubular Reactors: A Rigorous Dynamic Model Able to Predict the Full Molecular Weight Distribution. Macromolecular Reaction Engineering, 2009, 3, 398-411.	1.5	13
29	Modeling and optimization of a high-pressure ethylene polymerization reactor using gPROMS. Computers and Chemical Engineering, 2008, 32, 396-408.	3.8	30
30	â€œLivingâ€•Radical Polymerization in Tubular Reactors, 2 â€“ Process Optimization for Tailorâ€Made Molecular Weight Distributions. Macromolecular Reaction Engineering, 2008, 2, 414-421.	1.5	15
31	Integration of control aspects and uncertainty in the process design of polymerization reactors. Chemical Engineering Journal, 2007, 131, 135-144.	12.7	16
32	â€œLivingâ€•Free Radical Polymerization in Tubular Reactors. I. Modeling of the Complete Molecular Weight Distribution Using Probability Generating Functions. Macromolecular Reaction Engineering, 2007, 1, 622-634.	1.5	26
33	Explicit parametric controller for a batch polymerization system. Computer Aided Chemical Engineering, 2006, , 1215-1220.	0.5	1
34	Simultaneous process and control system design for grade transition in styrene polymerization. Chemical Engineering Science, 2006, 61, 3362-3378.	3.8	42
35	Molecular weight distributions in styrene polymerization with asymmetric bifunctional initiators. Polymer, 2004, 45, 321-335.	3.8	21
36	Simultaneous Design and Control of a Semibatch Styrene Polymerization Reactor. Industrial & Engineering Chemistry Research, 2004, 43, 5233-5247.	3.7	16

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37	Modeling Lowâ€Density Polyethylene (LDPE) Production in Tubular Reactors: Connecting Polymerization Conditions with Polymer Microstructure and Rheological Behavior. Macromolecular Reaction Engineering, 0, , 2200003.	1.5	2