Warren D Seider

List of Publications by Year
in descending order

		218381	197535
93 papers	2,699 citations	26 h-index	49 g-index
97 all docs	97 docs citations	97 times ranked	1436 citing authors

#	Article	IF	Citations
1	CO_2 process intensification of algae oil extraction to biodiesel. AICHE Journal, 2021, 67, .	1.8	12
2	An efficient algorithm for community detection in complex weighted networks. AICHE Journal, 2021, 67, e17205.	1.8	2
3	Understanding rare safety and reliability events using forward-flux sampling. Computers and Chemical Engineering, 2021, 153, 107387.	2.0	2
4	Omega-3 fatty acids from algae produced biodiesel. Algal Research, 2020, 51, 102047.	2.4	12
5	Model-predictive safety: A new evolution in functional safety. , 2020, , 283-321.		3
6	Modelâ€predictive safety optimal actions to detect and handle process operation hazards. AICHE Journal, 2020, 66, e16932.	1.8	7
7	Supercritical CO2 Transesterification of Triolein to Methyl-Oleate in a Batch Reactor: Experimental and Simulation Results. Processes, 2019, 7, 16.	1.3	7
8	Understanding rare safety and reliability events using transition path sampling. Computers and Chemical Engineering, 2018, 108, 74-88.	2.0	7
9	Improved predictions of alarm and safety system performance through process and operator responseâ€time modeling. AICHE Journal, 2016, 62, 3461-3472.	1.8	6
10	Modelâ€predictive safety system for proactive detection of operation hazards. AICHE Journal, 2016, 62, 2024-2042.	1.8	25
11	Phase equilibria of triolein to biodiesel reactor systems. Fluid Phase Equilibria, 2016, 409, 171-192.	1.4	25
12	Bifurcation control of high-dimensional nonlinear chemical processes using an extended washout-filter algorithm. Computers and Chemical Engineering, 2016, 84, 458-481.	2.0	4
13	Chemical Process Simulation for Dynamic Risk Analysis: A Steamâ€"Methane Reformer Case Study. Industrial & Engineering Chemistry Research, 2015, 54, 4347-4359.	1.8	12
14	Exergy efficiency of plant photosynthesis. Chemical Engineering Science, 2015, 130, 151-171.	1.9	31
15	Design for Process Safety â€" A Perspective. Computer Aided Chemical Engineering, 2014, 34, 795-800.	0.3	2
16	Maximumâ€likelihood maximumâ€entropy constrained probability density function estimation for prediction of rare events. AICHE Journal, 2014, 60, 1013-1026.	1.8	19
17	Estimation of Complete Discrete Multivariate Probability Distributions from Scarce Data with Application to Risk Assessment and Fault Detection. Industrial & Engineering Chemistry Research, 2014, 53, 7538-7547.	1.8	13
18	Commercial-Scale Biodiesel Production from Algae. Industrial & Engineering Chemistry Research, 2014, 53, 5311-5324.	1.8	59

#	ARTICLE	IF	CITATIONS
19	International Programming Committee. Computer Aided Chemical Engineering, 2014, 34, xvi-xvii.	0.3	0
20	An energy‑limited model of algal biofuel production: Toward the next generation of advanced biofuels. AICHE Journal, 2013, 59, 4641-4654.	1.8	12
21	A general method for spatially coarse-graining Metropolis Monte Carlo simulations onto a lattice. Journal of Chemical Physics, 2013, 138, 114104.	1.2	3
22	Teaching chemical engineering product design. Current Opinion in Chemical Engineering, 2012, 1, 472-475.	3.8	15
23	Assessment of catastrophe risk and potential losses in industry. Computers and Chemical Engineering, 2012, 47, 85-96.	2.0	21
24	Dynamic risk analysis using alarm databases to improve process safety and product quality: Part II‑Bayesian analysis. AICHE Journal, 2012, 58, 826-841.	1.8	53
25	Dynamic risk analysis using alarm databases to improve process safety and product quality: Part I‑Data compaction. AICHE Journal, 2012, 58, 812-825.	1.8	39
26	A Special Tribute to Honor Stuart Churchill on the Occasion of His 90th Birthday. Industrial & Engineering Chemistry Research, 2011, 50, 8803-8805.	1.8	0
27	Helical and Lemniscate Tubular Reactors. Industrial & Engineering Chemistry Research, 2011, 50, 8842-8850.	1.8	10
28	Improving Process Safety and Product Quality using Large Databases. Computer Aided Chemical Engineering, 2010, 28, 175-180.	0.3	6
29	Incidents Investigation and Dynamic Analysis of Large Alarm Databases in Chemical Plants: A Fluidized-Catalytic-Cracking Unit Case Study. Industrial & Engineering Chemistry Research, 2010, 49, 8062-8079.	1.8	40
30	Semicontinuous reactive extraction and reactive distillation. Chemical Engineering Research and Design, 2009, 87, 245-262.	2.7	22
31	Design heuristics for semicontinuous separation processes with chemical reactions. Chemical Engineering Research and Design, 2009, 87, 263-270.	2.7	18
32	Perspectives on chemical product and process design. Computers and Chemical Engineering, 2009, 33, 930-935.	2.0	29
33	Analysis of management actions, human behavior, and process reliability in chemical plants. I. impact of management actions. Process Safety Progress, 2008, 27, 7-14.	0.4	12
34	Analysis of management actions, human behavior, and process reliability in chemical plants. II. Near-miss management system selection. Process Safety Progress, 2008, 27, 139-144.	0.4	9
35	Semicontinuous distillation for ethyl lactate production. AICHE Journal, 2008, 54, 2539-2552.	1.8	31
36	Real-time risk analysis of safety systems. Computers and Chemical Engineering, 2008, 32, 827-840.	2.0	59

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37	Differential-geometric model-based control (DGMBC): A software package for controller design. Computers and Chemical Engineering, 2008, 32, 1569-1588.	2.0	2
38	Practical optimization of complex chemical processes with tight constraints. Computers and Chemical Engineering, 2008, 32, 2099-2112.	2.0	25
39	Coarse-grained lattice kinetic Monte Carlo simulation of systems of strongly interacting particles. Journal of Chemical Physics, 2008, 128, 194705.	1.2	26
40	Epitaxial Silicon Wafers using Plasma-Enhanced, Chemical-Vapor-Deposition. Computer Aided Chemical Engineering, 2007, 23, 289-309.	0.3	0
41	Model-Based Controller Design for Unstable, Non-Minimum-Phase, Nonlinear Processes. Industrial & Engineering Chemistry Research, 2006, 45, 2758-2768.	1.8	18
42	Design of Optimal Water-Using Networks with Internal Water Mains. Industrial & Engineering Chemistry Research, 2006, 45, 8413-8420.	1.8	24
43	Semicontinuous Distillation with Chemical Reaction in a Middle Vessel. Industrial & Engineering Chemistry Research, 2006, 45, 5548-5560.	1.8	17
44	Plant-specific dynamic failure assessment using Bayesian theory. Chemical Engineering Science, 2006, 61, 7036-7056.	1.9	177
45	Game theoretic approach to multiobjective designs: Focus on inherent safety. AICHE Journal, 2006, 52, 228-246.	1.8	21
46	A synthesis procedure for the design of semicontinuous reactive distillation for specialty chemicals. Computer Aided Chemical Engineering, 2006, 21, 949-954.	0.3	0
47	PSE and business decision-making in the chemical engineering curriculum. Computer Aided Chemical Engineering, 2003, 15, 74-87.	0.3	1
48	Nonlinear Controller Design for Input-Constrained, Multivariable Processes. Industrial & Engineering Chemistry Research, 2002, 41, 3735-3744.	1.8	15
49	Real-time, nonlinear control of a constrained, nonminimum-phase process. AICHE Journal, 2002, 48, 2247-2254.	1.8	4
50	Nonlinear feedback control of multivariable non-minimum-phase processes. Journal of Process Control, 2002, 12, 667-686.	1.7	14
51	New Structure and Design Methodology for Water Networks. Industrial & Engineering Chemistry Research, 2001, 40, 6140-6146.	1.8	100
52	Continuous-Time, Nonlinear Feedback Control of Stable Processes. Industrial & Engineering Chemistry Research, 2001, 40, 2069-2078.	1.8	17
53	Semicontinuous, middle-vessel distillation of ternary mixtures. AICHE Journal, 2000, 46, 1508-1520.	1.8	39
54	Semicontinuous, middle-vessel, extractive distillation. Computers and Chemical Engineering, 2000, 24, 879-885.	2.0	26

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55	Azeotropic distillation with an internal decanter. Computers and Chemical Engineering, 2000, 24, 2435-2446.	2.0	14
56	Distillateâˆ'Bottoms Control of Middle-Vessel Distillation Columns. Industrial & Engineering Chemistry Research, 2000, 39, 1840-1849.	1.8	18
57	Semicontinuous, Pressure-Swing Distillation. Industrial & Engineering Chemistry Research, 2000, 39, 122-130.	1.8	85
58	Model-predictive control of the Czochralski crystallization process. Part II. Reduced-order convection model. Journal of Crystal Growth, 1997, 178, 612-633.	0.7	17
59	A non-parametric Monte Carlo technique for controller verification. Automatica, 1997, 33, 901-906.	3.0	14
60	Model-predictive control of the Czochralski crystallization process. Part I. Conduction-dominated melt. Journal of Crystal Growth, 1997, 178, 593-611.	0.7	36
61	Verification of Controllers in the Presence of Uncertainty:Â Application to Styrene Polymerization. Industrial & Engineering Chemistry Research, 1996, 35, 2277-2287.	1.8	14
62	Journal review. Azeotropic distillation. AICHE Journal, 1996, 42, 96-130.	1.8	320
63	Multiphase equilibria of reactive systems. Fluid Phase Equilibria, 1996, 123, 283-303.	1.4	38
64	An interactive approach to teaching steady-state simulation of chemical processes. Computer Applications in Engineering Education, 1996, 4, 261-268.	2.2	1
65	Homotopy-continuation method for stability analysis in the global minimization of the Gibbs free energy. Fluid Phase Equilibria, 1995, 103, 213-249.	1.4	145
66	Computer AIDS for chemical engineering education: An assessment of CACHE-1971-1992. Computer Applications in Engineering Education, 1992, 1, 3-10.	2.2	1
67	Finite elements for near-singular systems â€" an overview. Computers and Chemical Engineering, 1992, 16, S43-S54.	2.0	1
68	Dynamic analysis of heterogeneous azeotropic distillation. AICHE Journal, 1992, 38, 1229-1242.	1.8	26
69	Nonlinear analysis in process design. AICHE Journal, 1991, 37, 1-38.	1.8	61
70	In transition. AICHE Journal, 1991, 37, 803-803.	1.8	0
71	Design and control of a process to extract .beta.-carotene with supercritical carbon dioxide. Biotechnology Progress, 1990, 6, 82-91.	1.3	32
72	Equilibrium solubilities of Î²-carotene in supercritical carbon dioxide. Fluid Phase Equilibria, 1990, 59, 57-71.	1.4	96

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73	Nonlinear analysis in process design. Why overdesign to avoid complex nonlinearities?. Industrial & Engineering Chemistry Research, 1990, 29, 805-818.	1.8	48
74	Bifurcation analysis in heterogeneous azeotropic distillation. AICHE Journal, 1989, 35, 1457-1464.	1.8	31
75	Effect of retrograde solubility on the design optimization of supercritical extraction processes. Industrial & Engineering Chemistry Research, 1989, 28, 1497-1503.	1.8	8
76	Multistep nonlinear predictive controller. Industrial & Engineering Chemistry Research, 1989, 28, 1812-1822.	1.8	87
77	Synthesis of utility systems integrated with chemical processes. Industrial & Engineering Chemistry Research, 1989, 28, 84-93.	1.8	41
78	Vapor-liquid and liquid-liquid equilibria for the system sec-butyl-alcohol-di-sec-butyl ether-water. Journal of Chemical & Engineering Data, 1988, 33, 16-20.	1.0	16
79	Chemical reaction equilibrium analysis: Theory and algorithms by William R. Smith and Ronald W. Missen, 364 pp., John Wiley, 1983,$42.95. AICHE Journal, 1985, 31, 176-176.	1.8	7
80	Integration of combustion reaction systems. Computers and Chemical Engineering, 1984, 8, 345-354.	2.0	0
81	Adaptive semiimplicit Runge-Kutta method for solution of stiff ordinary differential equations. Industrial & Engineering Chemistry Fundamentals, 1981, 20, 255-266.	0.7	21
82	Computation of phase and chemical equilibrium, part IV: Approach to chemical equilibrium. AICHE Journal, 1981, 27, 466-471.	1.8	25
83	Simulation of three-phase distillation towers. Computers and Chemical Engineering, 1981, 5, 7-20.	2.0	22
84	Coal pretreatmentâ€"extensions of flowtran to model solids-handling equipment. Computers and Chemical Engineering, 1980, 4, 49-61.	2.0	10
85	Computation of phase and chemical equilibrium: Part I. Local and constrained minima in Gibbs free energy. AICHE Journal, 1979, 25, 991-999.	1.8	159
86	Computation of phase and chemical equilibrium: Part II. Phase-splitting. AICHE Journal, 1979, 25, 999-1006.	1.8	66
87	Computation of phase and chemical equilibrium: Part III. Electrolytic solutions. AICHE Journal, 1979, 25, 1006-1015.	1.8	24
88	Computation of equilibrium in electrolyte solutions. Computers and Chemical Engineering, 1979, 3, 595.	2.0	0
89	Computer simulation of potassium-steam combined-cycle, electrical power plants. Computers and Chemical Engineering, 1977, 1, 161-169.	2.0	3
90	System structures for process simulation. AICHE Journal, 1977, 23, 658-666.	1.8	25

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91	Computation for process enginers, G. L. Wells and P. M. Robson, Holsted Press, 192 pages.$12.75. AICHE Journal, 1974, 20, 622-623.	1.8	0
92	A new technique for precedence-ordering chemical process equation sets. AICHE Journal, 1973, 19, 934-942.	1.8	13
93	Confined jet mixing in the entrance of a tubular reactor. AICHE Journal, 1971, 17, 704-712.	1.8	14