## Wenli Du

## List of Publications by Year in descending order

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279798 243625 2,643 135 23 44 h-index citations g-index papers 137 137 137 2175 citing authors docs citations times ranked all docs

#	Article	IF	Citations
1	Visualizing RNA dynamics in live cells with bright and stable fluorescent RNAs. Nature Biotechnology, 2019, 37, 1287-1293.	17.5	206
2	Biogeography-based learning particle swarm optimization. Soft Computing, 2017, 21, 7519-7541.	3.6	175
3	Secure Communication Based on Quantized Synchronization of Chaotic Neural Networks Under an Event-Triggered Strategy. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 3334-3345.	11.3	136
4	Multiagent Systems on Multilayer Networks: Synchronization Analysis and Network Design. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 1655-1667.	9.3	110
5	Heterojunction-redox catalysts of Fe <sub>x</sub> Co <sub>y</sub> Mg <sub>10</sub> CaO for high-temperature CO <sub>2</sub> capture and <i>iin situ</i> ii) conversion in the context of green manufacturing. Energy and Environmental Science, 2021, 14, 2291-2301.	30.8	86
6	Geometric Structural Ensemble Learning for Imbalanced Problems. IEEE Transactions on Cybernetics, 2020, 50, 1617-1629.	9.5	84
7	Multi-objective differential evolution with ranking-based mutation operator and its application in chemical process optimization. Chemometrics and Intelligent Laboratory Systems, 2014, 136, 85-96.	3.5	82
8	Secure Control of Multiagent Systems Against Malicious Attacks: A Brief Survey. IEEE Transactions on Industrial Informatics, 2022, 18, 3595-3608.	11.3	82
9	Large-scale industrial energy systems optimization under uncertainty: A data-driven robust optimization approach. Applied Energy, 2020, 259, 114199.	10.1	81
10	High-Dimensional Robust Multi-Objective Optimization for Order Scheduling: A Decision Variable Classification Approach. IEEE Transactions on Industrial Informatics, 2019, 15, 293-304.	11.3	73
11	Neural network aided approximation and parameter inference of non-Markovian models of gene expression. Nature Communications, 2021, 12, 2618.	12.8	71
12	Ternary Compression for Communication-Efficient Federated Learning. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 1162-1176.	11.3	64
13	Biogeography-based optimization with covariance matrix based migration. Applied Soft Computing Journal, 2016, 45, 71-85.	7.2	61
14	Online Performance Monitoring and Modeling Paradigm Based on Just-in-Time Learning and Extreme Learning Machine for a Non-Gaussian Chemical Process. Industrial & Engineering Chemistry Research, 2017, 56, 6671-6684.	3.7	43
15	An adaptive decomposition-based evolutionary algorithm for many-objective optimization. Information Sciences, 2019, 491, 204-222.	6.9	43
16	Distributed State-of-Charge Balance Control With Event-Triggered Signal Transmissions for Multiple Energy Storage Systems in Smart Grid. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 1601-1611.	9.3	37
17	Teaching-Learning-Based Optimization with Learning Enthusiasm Mechanism and Its Application in Chemical Engineering. Journal of Applied Mathematics, 2018, 2018, 1-19.	0.9	36
18	Synchronization analysis of heterogeneous dynamical networks. Neurocomputing, 2013, 104, 146-154.	5.9	35

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19	Modeling and Optimization of a Steam System in a Chemical Plant Containing Multiple Direct Drive Steam Turbines. Industrial & Engineering Chemistry Research, 2014, 53, 11021-11032.	3.7	34
20	A novel adaptive algorithm with near-infrared spectroscopy and its application in online gasoline blending processes. Chemometrics and Intelligent Laboratory Systems, 2015, 140, 117-125.	3.5	28
21	Online updating of NIR model and its industrial application via adaptive wavelength selection and local regression strategy. Chemometrics and Intelligent Laboratory Systems, 2014, 134, 79-88.	3.5	26
22	Development of a Free Radical Kinetic Model for Industrial Oxidation of <i>p</i> -Xylene Based on Artificial Neural Network and Adaptive Immune Genetic Algorithm. Industrial & Description Chemistry Research, 2012, 51, 3229-3237.	3.7	25
23	Perception and Navigation in Autonomous Systems in the Era of Learning: A Survey. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 9604-9624.	11.3	25
24	Modeling and Optimization of the Steam Turbine Network of an Ethylene Plant. Chinese Journal of Chemical Engineering, 2013, 21, 520-528.	3.5	23
25	Hybrid gradient particle swarm optimization for dynamic optimization problems of chemical processes. Asia-Pacific Journal of Chemical Engineering, 2013, 8, 708-720.	1.5	22
26	FLDNet: Frame-Level Distilling Neural Network for EEG Emotion Recognition. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 2533-2544.	6.3	22
27	Data-driven adaptive robust optimization for energy systems in ethylene plant under demand uncertainty. Applied Energy, 2022, 307, 118148.	10.1	22
28	Optimization of p-xylene oxidation reaction process based on self-adaptive multi-objective differential evolution. Chemometrics and Intelligent Laboratory Systems, 2013, 127, 55-62.	3.5	21
29	Solving chemical dynamic optimization problems with ranking-based differential evolution algorithms. Chinese Journal of Chemical Engineering, 2016, 24, 1600-1608.	3.5	21
30	A Fast Multi-Objective Particle Swarm Optimization Algorithm Based on a New Archive Updating Mechanism. IEEE Access, 2020, 8, 124734-124754.	4.2	21
31	A microporous surface containing Si3N4/Ta microparticles of PEKK exhibits both antibacterial and osteogenic activity for inducing cellular response and improving osseointegration. Bioactive Materials, 2021, 6, 3136-3149.	15.6	21
32	Adaptive Sampling for Surrogate Modelling with Artificial Neural Network and its Application in an Industrial Cracking Furnace. Canadian Journal of Chemical Engineering, 2016, 94, 262-272.	1.7	20
33	Multi-objective modeling and optimization for scheduling of cracking furnace systems. Chinese Journal of Chemical Engineering, 2017, 25, 992-999.	3.5	20
34	Semantic Supplementary Network With Prior Information for Multi-Label Image Classification. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 1848-1859.	8.3	20
35	EEG Emotion Recognition Based on 3-D Feature Representation and Dilated Fully Convolutional Networks. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 885-897.	3.8	20
36	Geometric imbalanced deep learning with feature scaling and boundary sample mining. Pattern Recognition, 2022, 126, 108564.	8.1	19

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37	Synchronization control in multiplex networks of nonlinear multi-agent systems. Chaos, 2017, 27, 123104.	2.5	18
38	A Just-in-Time Learning Based Monitoring and Classification Method for Hyper/Hypocalcemia Diagnosis. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2018, 15, 788-801.	3.0	18
39	Entropyâ€based hybrid sampling ensemble learning for imbalanced data. International Journal of Intelligent Systems, 2021, 36, 3039-3067.	5.7	18
40	A federated data-driven evolutionary algorithm. Knowledge-Based Systems, 2021, 233, 107532.	7.1	18
41	Near-Infrared Wavelength-Selection Method Based on Joint Mutual Information and Weighted Bootstrap Sampling. IEEE Transactions on Industrial Informatics, 2020, 16, 5884-5894.	11.3	18
42	A Survey on Knee-Oriented Multiobjective Evolutionary Optimization. IEEE Transactions on Evolutionary Computation, 2022, 26, 1452-1472.	10.0	18
43	Integrated Dual-Production Mode Modeling and Multiobjective Optimization of an Industrial Continuous Catalytic Naphtha Reforming Process. Industrial & Engineering Chemistry Research, 2016, 55, 5714-5725.	3.7	17
44	Autonomous Control Strategy for Microgrid Operating Modes Smooth Transition. IEEE Access, 2020, 8, 142159-142172.	4.2	17
45	Distributed Voltage Regulation for Low-Voltage and High-PV-Penetration Networks With Battery Energy Storage Systems Subject to Communication Delay. IEEE Transactions on Control Systems Technology, 2022, 30, 426-433.	5.2	17
46	Modeling and Optimization of the Cement Calcination Process for Reducing NO <sub><i>x</i></sub> Emission Using an Improved Just-In-Time Gaussian Mixture Regression. Industrial & Engineering Chemistry Research, 2020, 59, 4987-4999.	3.7	16
47	Development of a Hybrid Model for Industrial Ethylene Oxide Reactor. Industrial & Engineering Chemistry Research, 2012, 51, 6926-6932.	3.7	15
48	Entropy and gravitation based dynamic radius nearest neighbor classification for imbalanced problem. Knowledge-Based Systems, 2020, 193, 105474.	7.1	15
49	Global Convergence Guarantees of (A)GIST for a Family of Nonconvex Sparse Learning Problems. IEEE Transactions on Cybernetics, 2022, 52, 3276-3288.	9.5	15
50	Data-Driven Stochastic Robust Optimization for Industrial Energy System Considering Renewable Energy Penetration. ACS Sustainable Chemistry and Engineering, 2022, 10, 3690-3703.	6.7	15
51	Multiâ€Objective Optimization of Pseudoâ€Dynamic Operation of Naphtha Pyrolysis byÂa Surrogate Model. Chemical Engineering and Technology, 2015, 38, 900-906.	1.5	14
52	Weighted incremental minimax probability machine-based method for quality prediction in gasoline blending process. Chemometrics and Intelligent Laboratory Systems, 2020, 196, 103909.	3.5	14
53	BLSTM and CNN Stacking Architecture for Speech Emotion Recognition. Neural Processing Letters, 2021, 53, 4097-4115.	3.2	14
54	Learning to Capture the Query Distribution for Few-Shot Learning. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 4163-4173.	8.3	14

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55	A Novel Integrated Approach to Characterization of Petroleum Naphtha Properties From Near-Infrared Spectroscopy. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.	4.7	13
56	A federated data-driven evolutionary algorithm for expensive multi-/many-objective optimization. Complex & Intelligent Systems, 2021, 7, 3093-3109.	6.5	13
57	Ultrafast synthesis of 13X@NaA composites through plasma treatment for highly selective carbon capture. Journal of Materials Chemistry A, 2017, 5, 18801-18807.	10.3	12
58	Tree-based space partition and merging ensemble learning framework for imbalanced problems. Information Sciences, 2019, 503, 1-22.	6.9	12
59	Dynamic Event-Triggered SMC of Multi-Agent Systems for Consensus Tracking. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 1188-1192.	3.0	12
60	Optimal Iterative Learning Control for Batch Processes in the Presence of Time-Varying Dynamics. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 680-692.	9.3	12
61	A fuzzy constraint handling technique for decomposition-based constrained multi- and many-objective optimization. Information Sciences, 2022, 597, 318-340.	6.9	12
62	Dynamic Modeling and Economic Model Predictive Control with Production Mode Switching for an Industrial Catalytic Naphtha Reforming Process. Industrial & Engineering Chemistry Research, 2017, 56, 8961-8971.	3.7	11
63	Integration of Regional Demand Management and Signals Control for Urban Traffic Networks. IEEE Access, 2019, 7, 20235-20248.	4.2	11
64	Multi-objective differential evolution with dynamic hybrid constraint handling mechanism. Soft Computing, 2019, 23, 4341-4355.	3.6	11
65	Data-Driven Modeling and Cyclic Scheduling for Ethylene Cracking Furnace System with Inventory Constraints. Industrial & Engineering Chemistry Research, 2021, 60, 3687-3698.	3.7	11
66	Novel adaptive sample space expansion approach of NIR model for in-situ measurement of gasoline octane number in online gasoline blending processes. Chemical Engineering Science, 2021, 242, 116672.	3.8	11
67	A surrogate-assisted evolutionary algorithm for expensive many-objective optimization in the refining process. Swarm and Evolutionary Computation, 2022, 69, 100988.	8.1	11
68	Novel automatic model construction method for the rapid characterization of petroleum properties from near-infrared spectroscopy. Fuel, 2022, 316, 123101.	6.4	11
69	Multi-attention mutual information distributed framework for few-shot learning. Expert Systems With Applications, 2022, 202, 117062.	7.6	11
70	A Circular Target Feature Detection Framework Based on DCNN for Industrial Applications. IEEE Transactions on Industrial Informatics, 2021, 17, 3303-3313.	11.3	10
71	Impact analysis of multi-sensor layout on the source term estimation of hazardous gas leakage. Journal of Loss Prevention in the Process Industries, 2021, 73, 104579.	3.3	10
72	Data-Driven Robust Optimization for Steam Systems in Ethylene Plants under Uncertainty. Processes, 2019, 7, 744.	2.8	9

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73	Modeling of oil near-infrared spectroscopy based on similarity and transfer learning algorithm. Frontiers of Chemical Science and Engineering, 2019, 13, 599-607.	4.4	9
74	Optimal Coding Schemes for Detecting False Data Injection Attacks in Power System State Estimation. IEEE Transactions on Smart Grid, 2022, 13, 738-749.	9.0	9
75	Decentralized monitoring for largeâ€scale process using copulaâ€correlation analysis and Bayesian inference–based multiblock principal component analysis. Journal of Chemometrics, 2019, 33, e3158.	1.3	8
76	Multiple Empirical Kernel Learning with Majority Projection for imbalanced problems. Applied Soft Computing Journal, 2019, 76, 221-236.	7.2	8
77	Numerical Simulation of the Gas–Solid Two-Phase Flow-Reaction Process in a Maximizing Isoparaffin Process Reactor. ACS Omega, 2020, 5, 29043-29054.	3.5	8
78	An Interval Type-2 Fuzzy Controller Based on Data-Driven Parameters Extraction for Cement Calciner Process. IEEE Access, 2020, 8, 61775-61789.	4.2	8
79	Hybrid model of a cement rotary kiln using an improved attention-based recurrent neural network. ISA Transactions, 2022, 129, 631-643.	5.7	8
80	Incorporating Linear Regression Problems Into an Adaptive Framework With Feasible Optimizations. IEEE Transactions on Multimedia, 2023, 25, 4041-4051.	7.2	8
81	Generalized Nonconvex Nonsmooth Low-Rank Matrix Recovery Framework With Feasible Algorithm Designs and Convergence Analysis. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 5342-5353.	11.3	8
82	Globalized Multiple Balanced Subsets With Collaborative Learning for Imbalanced Data. IEEE Transactions on Cybernetics, 2022, 52, 2407-2417.	9.5	7
83	Product triâ€section based crude distillation unit model for refinery production planning and refinery optimization. AICHE Journal, 2021, 67, e17115.	3.6	7
84	Neural network-based source tracking of chemical leaks with obstacles. Chinese Journal of Chemical Engineering, 2021, 33, 211-220.	3.5	7
85	Surrogate-assisted multi-objective particle swarm optimization for the operation of CO2 capture using VPSA. Energy, 2021, 224, 120078.	8.8	7
86	Merged-Sampling Mask R-CNN With Random Proposal Expansion for Particle Measurement of SEM Images of Molecular Sieve Catalysts. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.	4.7	7
87	Online Detection of Model-Plant Mismatch in Closed-Loop Systems With Gaussian Processes. IEEE Transactions on Industrial Informatics, 2022, 18, 2213-2222.	11.3	6
88	Investigation of NOx emission under different burner structures with the optimized combustion model. Neurocomputing, 2022, 482, 224-235.	5.9	6
89	Performance monitoring of non-gaussian chemical processes with modes-switching using globality-locality preserving projection. Frontiers of Chemical Science and Engineering, 2017, 11, 429-439.	4.4	5
90	Multi-view learning with fisher kernel and bi-bagging for imbalanced problem. Applied Intelligence, 2019, 49, 3109-3122.	5.3	5

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91	Multiple Universum Empirical Kernel Learning. Engineering Applications of Artificial Intelligence, 2020, 89, 103461.	8.1	5
92	Fault Detection of Diesel Engine Air and after-Treatment Systems with High-Dimensional Data: A Novel Fault-Relevant Feature Selection Method. Processes, 2021, 9, 259.	2.8	5
93	False-Data-Injection-Enabled Network Parameter Modifications in Power Systems: Attack and Detection. IEEE Transactions on Industrial Informatics, 2023, 19, 177-188.	11.3	5
94	Comprehensive CFD simulation of the optimizations of geometric structures and operating parameters for industrial acetylene hydrogenation reactors. Canadian Journal of Chemical Engineering, 2016, 94, 2427-2435.	1.7	4
95	Dynamic Optimization of the Tandem Acetylene Hydrogenation Process. Industrial & Engineering Chemistry Research, 2016, 55, 11983-11995.	3.7	4
96	Simulation of the Evaporation Tube Banks in the Convection Section of a Steam Cracking Furnace Using an Evaporation Model. Industrial & Engineering Chemistry Research, 2017, 56, 10813-10825.	3.7	4
97	Development and challenges of planning and scheduling for petroleum and petrochemical production. Frontiers of Engineering Management, 2020, 7, 373-383.	6.1	4
98	Simultaneous Optimization and Heat Integration of an Aromatics Complex with a Surrogate Model. Industrial & Engineering Chemistry Research, 2021, 60, 3633-3647.	3.7	4
99	Semiâ€supervised multiple empirical kernel learning with pseudo empirical loss and similarity regularization. International Journal of Intelligent Systems, 2022, 37, 1674-1696.	5.7	4
100	Unsupervised cycle optimization learning for single-view depth and camera pose with Kalman filter. Engineering Applications of Artificial Intelligence, 2021, 106, 104488.	8.1	4
101	Heterogeneous Federated Meta-Learning with Mutually Constrained Propagation. IEEE Intelligent Systems, 2022, , 1-1.	4.0	4
102	Gravitation balanced multiple kernel learning for imbalanced classification. Neural Computing and Applications, $0$ , $0$ , $1$ .	5.6	4
103	Frame-Level Teacher–Student Learning With Data Privacy for EEG Emotion Recognition. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 11021-11028.	11.3	4
104	Peripheric sensors-based leaking source tracking in a chemical industrial park with complex obstacles. Journal of Loss Prevention in the Process Industries, 2022, 78, 104828.	3.3	4
105	Community detection based process decomposition and distributed monitoring for largeâ€scale processes. AICHE Journal, 2022, 68, .	3.6	4
106	Pseudolabelâ€guided multiview consensus graph learning for semisupervised classification. International Journal of Intelligent Systems, 2022, 37, 8611-8634.	5.7	4
107	Multi-matrices entropy discriminant ensemble learning for imbalanced problem. Neural Computing and Applications, 2020, 32, 8245-8264.	5.6	3
108	Drug-Target Interaction Prediction Based on Multi-Similarity Fusion and Sparse Dual-Graph Regularized Matrix Factorization. IEEE Access, 2021, 9, 99718-99730.	4.2	3

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109	OnionNet: Single-View Depth Prediction and Camera Pose Estimation for Unlabeled Video. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 995-1009.	3.8	3
110	A Vector-Based Approach for Controller Performance Assessment. Industrial & Engineering Chemistry Research, 2012, 51, 15745-15752.	3.7	2
111	Minimum time dynamic optimization using double-layer optimization algorithm. , $2012, \ldots$		2
112	Genetic mechanism-enhanced standard particle swarm optimization 2011. Soft Computing, 2018, 22, 7207-7225.	3.6	2
113	Recent progress and challenges in process optimization: Review of recent work at ECUST. Canadian Journal of Chemical Engineering, 2018, 96, 2115-2123.	1.7	2
114	Guest Editorial: Special Issue on Computational Intelligence in Data-Driven Optimization. IEEE Transactions on Emerging Topics in Computational Intelligence, 2019, 3, 90-92.	4.9	2
115	Dynamic Optimization of Chemical Processes using Symbiotic Organisms Search Algorithm., 2019,,.		2
116	Multiple Partial Empirical Kernel Learning with Instance Weighting and Boundary Fitting. Neural Networks, 2020, 123, 26-37.	5.9	2
117	Data-driven Scheduling Optimization of Ethylene Cracking Furnace System. , 2020, , .		2
118	Fast and Effective Dynamic Optimization for Chemical Processes with Catalyst Deactivation Based on Incremental Encoding and Random Search. Industrial & Engineering Chemistry Research, 2021, 60, 2983-2993.	3.7	2
119	Evolving Dual-Threshold Bienenstock-Cooper-Munro Learning Rules in Echo State Networks. IEEE Transactions on Neural Networks and Learning Systems, 2024, 35, 1572-1583.	11.3	2
120	Energy consumption monitoring of the steam pipe network based on affinity propagation clustering. , 2012, , .		1
121	Ultra-fast tracking control of high-order discrete-time multi-agent systems with H<inf> $\hat{a}$ 2</inf> performance specification., 2018,,.		1
122	Solution Set Augmentation for Knee Identification in Multiobjective Decision Analysis. IEEE Transactions on Cybernetics, 2023, 53, 2480-2493.	9.5	1
123	Nonconvex Rank Relaxations based Matrix Regression for Face Reconstruction and Recognition. , 2020, , .		1
124	Cycle Scheduling of Ethylene Cracking Furnace System with Inventory Constraints., 2020,,.		1
125	Global Sensitivity Analysis for the input parameters of a Perfusion Bioreactor System in Tissue Engineering. , 2021, , .		1
126	Multilabel Convolutional Network With Feature Denoising and Details Supplement. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 8349-8361.	11.3	1

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127	Performance bound of parallel cascade control system based on minimum variance and generalized minimum variance benchmarking. , $2012$ , , .		0
128	Process monitoring with global probability boundary-based on Gaussian mixture model., 2013,,.		0
129	Efficient matrixized classification learning with separated solution process. Neural Computing and Applications, 2020, 32, 10609-10632.	5.6	0
130	Intelligent Time-Scale Operator-Splitting Integration for Chemical Reaction Systems. IEEE Transactions on Neural Networks and Learning Systems, 2020, 32, 1-11.	11.3	0
131	The stability analysis of stochastic opinion dynamics systems with multiplicative noise and time delays. IET Control Theory and Applications, 2021, 15, 1769-1777.	2.1	0
132	Erratum to "Merged-Sampling Mask R-CNN With Random Proposal Expansion for Particle Measurement of SEM Images of Molecular Sieve Catalysts― IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-1.	4.7	0
133	Learning-Based Adaptive Optimal Control for Flotation Processes Subject to Input Constraints. IEEE Transactions on Control Systems Technology, 2023, 31, 252-264.	5.2	0
134	Uncertainty analysis of NOx and CO emissions in industrial ethylene cracking furnace using high-precision sparse polynomial chaos expansion. Combustion Science and Technology, 2024, 196, 195-222.	2.3	0
135	Data-Driven Tabulation for Chemistry Integration Using Recurrent Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 5392-5402.	11.3	O