Chuanhou Gao

List of Publications by Year
in descending order

42 papers	960 citations	516710 16 h-index	434195 31 g-index
42 all docs	42 docs citations	42 times ranked	573 citing authors

#	Article	IF	Citations
1	Modeling of the Thermal State Change of Blast Furnace Hearth With Support Vector Machines. IEEE Transactions on Industrial Electronics, 2012, 59, 1134-1145.	7.9	136
2	Data-Driven Time Discrete Models for Dynamic Prediction of the Hot Metal Silicon Content in the Blast Furnace—A Review. IEEE Transactions on Industrial Informatics, 2013, 9, 2213-2225.	11.3	99
3	Rule Extraction From Fuzzy-Based Blast Furnace SVM Multiclassifier for Decision-Making. IEEE Transactions on Fuzzy Systems, 2014, 22, 586-596.	9.8	70
4	Novel Just-In-Time Learning-Based Soft Sensor Utilizing Non-Gaussian Information. IEEE Transactions on Control Systems Technology, 2014, 22, 360-368.	5.2	64
5	Binary Coding SVMs for the Multiclass Problem of Blast Furnace System. IEEE Transactions on Industrial Electronics, 2013, 60, 3846-3856.	7.9	63
6	Application of Least Squares Support Vector Machines to Predict the Silicon Content in Blast Furnace Hot Metal. ISIJ International, 2008, 48, 1659-1661.	1.4	51
7	Guest Editorial: Special section on data-driven approaches for complex industrial systems. IEEE Transactions on Industrial Informatics, 2013, 9, 2210-2212.	11.3	51
8	Constructing Multiple Kernel Learning Framework for Blast Furnace Automation. IEEE Transactions on Automation Science and Engineering, 2012, 9, 763-777.	5.2	48
9	A chaos—based iterated multistep predictor for blast furnace ironmaking process. AICHE Journal, 2009, 55, 947-962.	3.6	44
10	A Sliding—window Smooth Support Vector Regression Model for Nonlinear Blast Furnace System. Steel Research International, 2011, 82, 169-179.	1.8	35
11	Modeling and Control of Complex Dynamic Systems: Applied Mathematical Aspects. Journal of Applied Mathematics, 2012, 2012, 1-5.	0.9	35
12	Design of a multiple kernel learning algorithm for LS-SVM by convex programming. Neural Networks, 2011, 24, 476-483.	5.9	31
13	Data-Driven Modeling Based on Volterra Series for Multidimensional Blast Furnace System. IEEE Transactions on Neural Networks, 2011, 22, 2272-2283.	4.2	29
14	Linear Priors Mined and Integrated for Transparency of Blast Furnace Black-Box SVM Model. IEEE Transactions on Industrial Informatics, 2020, 16, 3862-3870.	11.3	23
15	Assessing the Predictability for Blast Furnace System through Nonlinear Time Series Analysis. Industrial & Engineering Chemistry Research, 2008, 47, 3037-3045.	3.7	22
16	Blast Furnace System Modeling by Multivariate Phase Space Reconstruction and Neural Networks. Asian Journal of Control, 2013, 15, 553-561.	3.0	19
17	Identification of multiscale nature and multiple dynamics of the blast furnace system from operating data. AICHE Journal, 2011, 57, 3448-3458.	3.6	16
18	Stabilization of Input-Disturbed Stochastic Port-Hamiltonian Systems Via Passivity. IEEE Transactions on Automatic Control, 2017, 62, 4159-4166.	5.7	16

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19	Data‐based multiscale modeling for blast furnace system. AICHE Journal, 2014, 60, 2197-2210.	3.6	14
20	Lyapunov Function Partial Differential Equations for Chemical Reaction Networks: Some Special Cases. SIAM Journal on Applied Dynamical Systems, 2019, 18, 1163-1199.	1.6	13
21	Evidence of Chaotic Behavior in Noise From Industrial Process. IEEE Transactions on Signal Processing, 2007, 55, 2877-2884.	5.3	10
22	Regression‐based analysis of multivariate non‐Gaussian datasets for diagnosing abnormal situations in chemical processes. AICHE Journal, 2014, 60, 148-159.	3.6	8
23	Multiscale dynamic analysis of blast furnace system based on intensive signal processing. Chaos, 2010, 20, 033102.	2.5	6
24	Symmetric extreme learning machine. Neural Computing and Applications, 2013, 22, 551-558.	5.6	6
25	Soft sensor development using non-Gaussian Just-In-Time modeling. , 2011, , .		5
26	Modeling and Control of Complex Dynamic Systems 2013. Journal of Applied Mathematics, 2013, 2013, 1-3.	0.9	5
27	Complex Balancing Reconstructed to the Asymptotic Stability of Mass-Action Chemical Reaction Networks with Conservation Laws. SIAM Journal on Applied Mathematics, 2019, 79, 55-74.	1.8	5
28	Persistence of Delayed Complex Balanced Chemical Reaction Networks. IEEE Transactions on Automatic Control, 2021, 66, 1658-1669.	5.7	5
29	A Nonuniform Delay-Coordinate Embedding-Based Multiscale Predictor for Blast Furnace Systems. IEEE Transactions on Control Systems Technology, 2021, 29, 2223-2230.	5.2	4
30	Incorporation of Data-Mined Knowledge into Black-Box SVM for Interpretability. ACM Transactions on Intelligent Systems and Technology, 2023, 14, 1-22.	4.5	4
31	Using LSSVM model to predict the silicon content in hot metal based on KPCA feature extraction. , 2011, , .		3
32	Realizations of quasi-polynomial systems and application for stability analysis. Journal of Mathematical Chemistry, 2017, 55, 1597-1621.	1.5	3
33	Structured sparsity modeling for improved multivariate statistical analysis based fault isolation. Journal of Process Control, 2021, 98, 66-78.	3.3	3
34	Lyapunov Function Partial Differential Equations for Stability Analysis of a Class of Chemical Reaction Networks. IFAC-PapersOnLine, 2020, 53, 11509-11514.	0.9	3
35	A Data-based Compact High-order Volterra Model for Complex Blast Furnace System. IEEE Transactions on Industrial Informatics, 2021, , 1-1.	11.3	3
36	Thermodynamic Potentials from Stationary Probabilities. IFAC-PapersOnLine, 2019, 52, 96-102.	0.9	2

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37	Adaptation Mechanisms in Phosphorylation Cycles By Allosteric Binding and Gene Autoregulation. IEEE Transactions on Automatic Control, 2020, 65, 3457-3470.	5.7	2
38	The Fractal Multiscale Trend Decomposition of Silicon Content in Blast Furnace Hot Metal. ISIJ International, 2011, 51, 588-592.	1.4	2
39	Multi-scale entropy analysis on the complexity of blast furnace ironmaking process. , 2010, , .		1
40	Isolation of Overtemperature Fault in an Industrial Boiler Using Tree-Structured Sparsity-Based Reconstruction. Industrial & Engineering Chemistry Research, 2022, 61, 6575-6586.	3.7	1
41	CHAOTIC FEATURE OF MARTIN PROCESS IMPOSED ON THE COSINE FUNCTION. Fractals, 2009, 17, 191-195.	3.7	0
42	A Graphic Formulation of Nonisothermal Chemical Reaction Systems and the Analysis of Detailed Balanced Networks. SIAM Journal on Applied Dynamical Systems, 2020, 19, 2594-2627.	1.6	0