

Thomas J Mcavoy

List of Publications by Year in descending order

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43
papers

1,968
citations

361045

20
h-index

377514

34
g-index

44
all docs

44
docs citations

44
times ranked

1376
citing authors

#	ARTICLE	IF	CITATIONS
1	Identification of faulty sensors using principal component analysis. AICHE Journal, 1996, 42, 2797-2812.	1.8	460
2	Long-term predictions of chemical processes using recurrent neural networks: a parallel training approach. Industrial & Engineering Chemistry Research, 1992, 31, 1338-1352.	1.8	170
3	Neural net based model predictive control. International Journal of Control, 1991, 54, 1453-1468.	1.2	163
4	Surface state trapping models for SnO ₂ -based microhotplate sensors. Sensors and Actuators B: Chemical, 2001, 77, 597-613.	4.0	148
5	Optimization of temperature programmed sensing for gas identification using micro-hotplate sensors. Sensors and Actuators B: Chemical, 1998, 53, 24-43.	4.0	123
6	Batch tracking via nonlinear principal component analysis. AICHE Journal, 1996, 42, 2199-2208.	1.8	97
7	Incidence of Changes in Respiration-Induced Tumor Motion and Its Relationship With Respiratory Surrogates During Individual Treatment Fractions. International Journal of Radiation Oncology Biology Physics, 2012, 82, 1665-1673.	0.4	76
8	Intelligent control. Journal of Process Control, 1992, 2, 115-127.	1.7	63
9	An analysis of the treatment couch and control system dynamics for respiration-induced motion compensation. Medical Physics, 2006, 33, 4701-4709.	1.6	61
10	Sensor and actuator fault isolation by structured partial PCA with nonlinear extensions. Journal of Process Control, 2000, 10, 459-469.	1.7	55
11	A multivariate statistical controller for on-line quality improvement. Journal of Process Control, 1998, 8, 139-149.	1.7	51
12	Synthesis of Plantwide Control Systems Using Optimization. Industrial & Engineering Chemistry Research, 1999, 38, 2984-2994.	1.8	49
13	Modeling Nutrient Dynamics in Sequencing Batch Reactor. Journal of Environmental Engineering, ASCE, 1997, 123, 311-319.	0.7	47
14	A comparison of neural networks and partial least squares for deconvoluting fluorescence spectra. Biotechnology and Bioengineering, 1992, 40, 53-62.	1.7	45
15	The biologic half-life of heparin. Clinical Pharmacology and Therapeutics, 1979, 25, 372-379.	2.3	33
16	Principal Component Analysis and Parity Relations - A Strong Duality. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 833-838.	0.4	32
17	Inferential modeling and predictive feedback control in real-time motion compensation using the treatment couch during radiotherapy. Physics in Medicine and Biology, 2007, 52, 5831-5854.	1.6	29
18	Identification of Chemical Processes using Recurrent Networks. , 1991, , .		27

#	ARTICLE	IF	CITATIONS
19	Process control utilizing data based multivariate statistical models. Canadian Journal of Chemical Engineering, 1996, 74, 1010-1024.	0.9	26
20	A core microbiome associated with the peritoneal tumors of pseudomyxoma peritonei. Orphanet Journal of Rare Diseases, 2013, 8, 105.	1.2	25
21	Investigation of motion sickness and inertial stability on a moving couch for intra-fraction motion compensation. Acta Oncologica, 2009, 48, 1198-1203.	0.8	20
22	Antibiotic Treatment Decreases Microbial Burden Associated with Pseudomyxoma Peritonei and Affects β -Catenin Distribution. Clinical Cancer Research, 2013, 19, 3966-3976.	3.2	18
23	Optimal averaging level control for the tennessee eastman problem. Canadian Journal of Chemical Engineering, 1995, 73, 234-240.	0.9	16
24	Fault isolation in nonlinear systems with structured partial principal component analysis and clustering analysis. Canadian Journal of Chemical Engineering, 2000, 78, 569-577.	0.9	16
25	Optimizing Neural Net based Predictive Control. , 1990, , .		15
26	Mitigating Errors in External Respiratory Surrogate-Based Models of Tumor Position. International Journal of Radiation Oncology Biology Physics, 2012, 82, e709-e716.	0.4	15
27	Maintaining tumor targeting accuracy in real-time motion compensation systems for respiration-induced tumor motion. Medical Physics, 2013, 40, 071709.	1.6	13
28	Dynamic modeling of ph electrodes. Canadian Journal of Chemical Engineering, 1978, 56, 346-353.	0.9	12
29	Online monitoring and error detection of real-time tumor displacement prediction accuracy using control limits on respiratory surrogate statistics. Medical Physics, 2012, 39, 2042-2048.	1.6	11
30	Dynamic Modeling and Optimization of Micro-Hotplate Chemical Gas Sensors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 91-95.	0.4	8
31	Fault Isolation by Partial PCA and Partial NLPCA. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 7647-7652.	0.4	8
32	Inferring Positions of Tumor and Nodes in Stage III Lung Cancer From Multiple Anatomical Surrogates Using Four-Dimensional Computed Tomography. International Journal of Radiation Oncology Biology Physics, 2010, 77, 1553-1560.	0.4	8
33	Multi-Block Predictive Monitoring of Continuous Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 73-77.	0.4	7
34	Plant-Wide Control Using an Inferential Approach. , 1993, , .		6
35	Computing the Relative Gains for Pressure and Composition Control of a Single Distillation Tower. , 1982, , .		3
36	MODELING, SIMULATION AND CONTROL OF CRUDE TOWERS. Chemical Engineering Communications, 1990, 98, 1-29.	1.5	3

#	ARTICLE	IF	CITATIONS
37	Pre- and post-operative antibiotics in conjunction with cytoreductive surgery and heated intraperitoneal chemotherapy (HIPEC) should be considered for pseudomyxoma peritonei (PMP) treatment. European Journal of Surgical Oncology, 2019, 45, 1723-1726.	0.5	2
38	Decoupling Dual Composition Controllers 1. Steady State Results. , 1983, , .		2
39	CONSCIENCE: Control and System Identification using Elements of Neural Network Computation Engineering. , 1992, , .		1
40	Comments on hybrid computing time of A DI method. AIChE Journal, 1971, 17, 1245-1245.	1.8	0
41	Short-Cut Analysis of Pressure Control In Steam Headers. , 1986, , .		0
42	<title>Quantification of a single-component gas in air with a microhotplate gas sensor using partial least squares techniques</title>. , 1999, 3856, 162.		0
43	The Effect of Interaction on Tuning and Operability of Classically Controlled Systems. , 1984, , .		0