

Francis J Doyle

List of Publications by Citations

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Version: 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

188
papers

9,644
citations

47
h-index

95
g-index

202
ext. papers

12,145
ext. citations

6.9
avg, IF

6.11
L-index

#	Paper	IF	Citations
188	Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations From the International Consensus on Time in Range. <i>Diabetes Care</i> , 2019 , 42, 1593-1603	14.6	998
187	International Consensus on Use of Continuous Glucose Monitoring. <i>Diabetes Care</i> , 2017 , 40, 1631-1640	14.6	872
186	Intercellular coupling confers robustness against mutations in the SCN circadian clock network. <i>Cell</i> , 2007 , 129, 605-16	56.2	584
185	Survey on iterative learning control, repetitive control, and run-to-run control. <i>Journal of Process Control</i> , 2009 , 19, 1589-1600	3.9	477
184	Identification of small molecule activators of cryptochrome. <i>Science</i> , 2012 , 337, 1094-7	33.3	320
183	Six-Month Randomized, Multicenter Trial of Closed-Loop Control in Type 1 Diabetes. <i>New England Journal of Medicine</i> , 2019 , 381, 1707-1717	59.2	318
182	Fully integrated artificial pancreas in type 1 diabetes: modular closed-loop glucose control maintains near normoglycemia. <i>Diabetes</i> , 2012 , 61, 2230-7	0.9	271
181	Closed-loop artificial pancreas systems: engineering the algorithms. <i>Diabetes Care</i> , 2014 , 37, 1191-7	14.6	268
180	Robustness properties of circadian clock architectures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 13210-5	11.5	207
179	A novel computational model of the circadian clock in Arabidopsis that incorporates PRR7 and PRR9. <i>Molecular Systems Biology</i> , 2006 , 2, 58	12.2	187
178	Zone model predictive control: a strategy to minimize hyper- and hypoglycemic events. <i>Journal of Diabetes Science and Technology</i> , 2010 , 4, 961-75	4.1	154
177	A model of the cell-autonomous mammalian circadian clock. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 11107-12	11.5	153
176	Outcome Measures for Artificial Pancreas Clinical Trials: A Consensus Report. <i>Diabetes Care</i> , 2016 , 39, 1175-9	14.6	149
175	Safety of outpatient closed-loop control: first randomized crossover trials of a wearable artificial pancreas. <i>Diabetes Care</i> , 2014 , 37, 1789-96	14.6	144
174	Guidelines for Genome-Scale Analysis of Biological Rhythms. <i>Journal of Biological Rhythms</i> , 2017 , 32, 380-393	3.2	127
173	A molecular model for intercellular synchronization in the mammalian circadian clock. <i>Biophysical Journal</i> , 2007 , 92, 3792-803	2.9	127
172	Control-relevant models for glucose control using a priori patient characteristics. <i>IEEE Transactions on Biomedical Engineering</i> , 2012 , 59, 1839-49	5	115

171	Closed-loop control of artificial pancreatic Beta -cell in type 1 diabetes mellitus using model predictive iterative learning control. <i>IEEE Transactions on Biomedical Engineering</i> , 2010 , 57, 211-9	5	114
170	Safety constraints in an artificial pancreatic beta cell: an implementation of model predictive control with insulin on board. <i>Journal of Diabetes Science and Technology</i> , 2009 , 3, 536-44	4.1	111
169	Real-Time hypoglycemia prediction suite using continuous glucose monitoring: a safety net for the artificial pancreas. <i>Diabetes Care</i> , 2010 , 33, 1249-54	14.6	104
168	Periodic zone-MPC with asymmetric costs for outpatient-ready safety of an artificial pancreas to treat type 1 diabetes. <i>Automatica</i> , 2016 , 71, 237-246	5.7	102
167	Feasibility of Long-Term Closed-Loop Control: A Multicenter 6-Month Trial of 24/7 Automated Insulin Delivery. <i>Diabetes Technology and Therapeutics</i> , 2017 , 19, 18-24	8.1	97
166	Run-to-run control of blood glucose concentrations for people with Type 1 diabetes mellitus. <i>IEEE Transactions on Biomedical Engineering</i> , 2006 , 53, 996-1005	5	96
165	A neuropeptide speeds circadian entrainment by reducing intercellular synchrony. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, E4355-61	11.5	95
164	Randomized Crossover Comparison of Personalized MPC and PID Control Algorithms for the Artificial Pancreas. <i>Diabetes Care</i> , 2016 , 39, 1135-42	14.6	93
163	Clinical evaluation of a personalized artificial pancreas. <i>Diabetes Care</i> , 2013 , 36, 801-9	14.6	91
162	A Run-to-Run Control Strategy to Adjust Basal Insulin Infusion Rates in Type 1 Diabetes. <i>Journal of Process Control</i> , 2008 , 18, 258-265	3.9	90
161	Pilot studies of wearable outpatient artificial pancreas in type 1 diabetes. <i>Diabetes Care</i> , 2012 , 35, e65-7	14.6	89
160	Modeling cortisol dynamics in the neuro-endocrine axis distinguishes normal, depression, and post-traumatic stress disorder (PTSD) in humans. <i>PLoS Computational Biology</i> , 2012 , 8, e1002379	5	85
159	Multinational Home Use of Closed-Loop Control Is Safe and Effective. <i>Diabetes Care</i> , 2016 , 39, 1143-50	14.6	83
158	Energy-efficient pulse-coupled synchronization strategy design for wireless sensor networks through reduced idle listening. <i>IEEE Transactions on Signal Processing</i> , 2012 , 60,	4.8	71
157	Modular artificial beta-cell system: a prototype for clinical research. <i>Journal of Diabetes Science and Technology</i> , 2008 , 2, 863-72	4.1	67
156	Accuracy of Wrist-Worn Activity Monitors During Common Daily Physical Activities and Types of Structured Exercise: Evaluation Study. <i>JMIR MHealth and UHealth</i> , 2018 , 6, e10338	5.5	64
155	Prandial insulin dosing using run-to-run control: application of clinical data and medical expertise to define a suitable performance metric. <i>Diabetes Care</i> , 2007 , 30, 1131-6	14.6	63
154	Amplitude metrics for cellular circadian bioluminescence reporters. <i>Biophysical Journal</i> , 2014 , 107, 2712-23	2.3	60

153	Periodic-zone model predictive control for diurnal closed-loop operation of an artificial pancreas. <i>Journal of Diabetes Science and Technology</i> , 2013 , 7, 1446-60	4.1	59
152	Adjustment of Open-Loop Settings to Improve Closed-Loop Results in Type 1 Diabetes: A Multicenter Randomized Trial. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2015 , 100, 3878-86	5.6	58
151	Effect of input excitation on the quality of empirical dynamic models for type 1 diabetes. <i>AICHE Journal</i> , 2009 , 55, 1135-1146	3.6	54
150	Sensitivity Measures for Oscillating Systems: Application to Mammalian Circadian Gene Network. <i>IEEE Transactions on Automatic Control</i> , 2008 , 53, 177-188	5.9	52
149	Event-Triggered Model Predictive Control for Embedded Artificial Pancreas Systems. <i>IEEE Transactions on Biomedical Engineering</i> , 2018 , 65, 575-586	5	51
148	Intraperitoneal insulin delivery provides superior glycaemic regulation to subcutaneous insulin delivery in model predictive control-based fully-automated artificial pancreas in patients with type 1 diabetes: a pilot study. <i>Diabetes, Obesity and Metabolism</i> , 2017 , 19, 1698-1705	6.7	50
147	Twelve-Week 24/7 Ambulatory Artificial Pancreas With Weekly Adaptation of Insulin Delivery Settings: Effect on Hemoglobin A and Hypoglycemia. <i>Diabetes Care</i> , 2017 , 40, 1719-1726	14.6	50
146	Clinical evaluation of an automated artificial pancreas using zone-model predictive control and health monitoring system. <i>Diabetes Technology and Therapeutics</i> , 2014 , 16, 348-57	8.1	50
145	Glucose estimation and prediction through meal responses using ambulatory subject data for advisory mode model predictive control. <i>Journal of Diabetes Science and Technology</i> , 2007 , 1, 825-33	4.1	50
144	Cybernetic model predictive control of a continuous bioreactor with cell recycle. <i>Biotechnology Progress</i> , 2003 , 19, 1487-97	2.8	50
143	Outpatient Closed-Loop Control with Unannounced Moderate Exercise in Adolescents Using Zone Model Predictive Control. <i>Diabetes Technology and Therapeutics</i> , 2017 , 19, 331-339	8.1	48
142	Entrainment of Circadian Rhythms Depends on Firing Rates and Neuropeptide Release of VIP SCN Neurons. <i>Neuron</i> , 2018 , 99, 555-563.e5	13.9	48
141	Glucose control design using nonlinearity assessment techniques. <i>AICHE Journal</i> , 2005 , 51, 544-554	3.6	44
140	Circadian phase resetting via single and multiple control targets. <i>PLoS Computational Biology</i> , 2008 , 4, e1000104	5	41
139	Spatiotemporal separation of PER and CRY posttranslational regulation in the mammalian circadian clock. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 2040-5	11.5	40
138	Optimal phase response functions for fast pulse-coupled synchronization in wireless sensor networks. <i>IEEE Transactions on Signal Processing</i> , 2012 , 60,	4.8	40
137	Weakly circadian cells improve resynchrony. <i>PLoS Computational Biology</i> , 2012 , 8, e1002787	5	39
136	Functional network inference of the suprachiasmatic nucleus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 4512-7	11.5	39

135	Application of Zone Model Predictive Control Artificial Pancreas During Extended Use of Infusion Set and Sensor: A Randomized Crossover-Controlled Home-Use Trial. <i>Diabetes Care</i> , 2017 , 40, 1096-1102	14.6	38
134	Design and Evaluation of a Robust PID Controller for a Fully Implantable Artificial Pancreas. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 10311-10321	3.9	38
133	Velocity-weighting & velocity-penalty MPC of an artificial pancreas: Improved safety & performance. <i>Automatica</i> , 2018 , 91, 105-117	5.7	38
132	Quantitative performance metrics for robustness in circadian rhythms. <i>Bioinformatics</i> , 2007 , 23, 358-64	7.2	38
131	Glucose sensing in the peritoneal space offers faster kinetics than sensing in the subcutaneous space. <i>Diabetes</i> , 2014 , 63, 2498-505	0.9	37
130	Design of the health monitoring system for the artificial pancreas: low glucose prediction module. <i>Journal of Diabetes Science and Technology</i> , 2012 , 6, 1345-54	4.1	37
129	Ontogeny of Circadian Rhythms and Synchrony in the Suprachiasmatic Nucleus. <i>Journal of Neuroscience</i> , 2018 , 38, 1326-1334	6.6	36
128	Reducing risks in type 1 diabetes using H ₁ control. <i>IEEE Transactions on Biomedical Engineering</i> , 2014 , 61, 2939-47	5	34
127	Dynamic insulin on board: incorporation of circadian insulin sensitivity variation. <i>Journal of Diabetes Science and Technology</i> , 2013 , 7, 928-40	4.1	34
126	Multi-omic biomarker identification and validation for diagnosing warzone-related post-traumatic stress disorder. <i>Molecular Psychiatry</i> , 2020 , 25, 3337-3349	15.1	34
125	Multicenter closed-loop/hybrid meal bolus insulin delivery with type 1 diabetes. <i>Diabetes Technology and Therapeutics</i> , 2014 , 16, 623-32	8.1	33
124	Novel global sensitivity analysis methodology accounting for the crucial role of the distribution of input parameters: application to systems biology models. <i>International Journal of Robust and Nonlinear Control</i> , 2012 , 22, 1082-1102	3.6	33
123	In silico evaluation platform for artificial pancreatic beta-cell development--a dynamic simulator for closed-loop control with hardware-in-the-loop. <i>Diabetes Technology and Therapeutics</i> , 2009 , 11, 187-94	8.1	32
122	Core module biomarker identification with network exploration for breast cancer metastasis. <i>BMC Bioinformatics</i> , 2012 , 13, 12	3.6	31
121	Model predictive control with learning-type set-point: Application to artificial pancreatic β cell. <i>AIChE Journal</i> , 2010 , 56, 1510-1518	3.6	31
120	Oscillator model reduction preserving the phase response: application to the circadian clock. <i>Biophysical Journal</i> , 2008 , 95, 1658-73	2.9	30
119	Quantity and accessibility for specific targeting of receptors in tumours. <i>Scientific Reports</i> , 2014 , 4, 5232	4.9	29
118	Synchrony and entrainment properties of robust circadian oscillators. <i>Journal of the Royal Society Interface</i> , 2008 , 5 Suppl 1, S17-28	4.1	29

117	Clinical update on optimal prandial insulin dosing using a refined run-to-run control algorithm. <i>Journal of Diabetes Science and Technology</i> , 2009 , 3, 487-91	4.1	28
116	Computational and experimental insights into the circadian effects of SIRT1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 11643-11648	11.5	28
115	Adaptive Zone Model Predictive Control of Artificial Pancreas Based on Glucose- and Velocity-Dependent Control Penalties. <i>IEEE Transactions on Biomedical Engineering</i> , 2019 , 66, 1045-1054 ⁵		27
114	Metabolomic analysis of male combat veterans with post traumatic stress disorder. <i>PLoS ONE</i> , 2019 , 14, e0213839	3.7	26
113	Synchronization of Pulse-Coupled Oscillators on (Strongly) Connected Graphs. <i>IEEE Transactions on Automatic Control</i> , 2015 , 60, 1710-1715	5.9	26
112	Early Detection of Physical Activity for People With Type 1 Diabetes Mellitus. <i>Journal of Diabetes Science and Technology</i> , 2015 , 9, 1236-45	4.1	26
111	Enhanced Model Predictive Control (eMPC) Strategy for Automated Glucose Control. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 11857-11868	3.9	26
110	Dual-Color Single-Cell Imaging of the Suprachiasmatic Nucleus Reveals a Circadian Role in Network Synchrony. <i>Neuron</i> , 2020 , 108, 164-179.e7	13.9	26
109	Design and Clinical Evaluation of the Interoperable Artificial Pancreas System (iAPS) Smartphone App: Interoperable Components with Modular Design for Progressive Artificial Pancreas Research and Development. <i>Diabetes Technology and Therapeutics</i> , 2019 , 21, 35-43	8.1	24
108	Evaluation of an Artificial Pancreas with Enhanced Model Predictive Control and a Glucose Prediction Trust Index with Unannounced Exercise. <i>Diabetes Technology and Therapeutics</i> , 2018 , 20, 455-464	8.1	23
107	Response to Comment on Pinsky et al. Randomized Crossover Comparison of Personalized MPC and PID Control Algorithms for the Artificial Pancreas. <i>Diabetes Care</i> 2016;39:1135-1142. <i>Diabetes Care</i> , 2017 , 40, e4-e5	14.6	22
106	Increasing sync rate of pulse-coupled oscillators via phase response function design: theory and application to wireless networks. <i>IEEE Transactions on Control Systems Technology</i> , 2012 , 21,	4.8	22
105	Pre-deployment risk factors for PTSD in active-duty personnel deployed to Afghanistan: a machine-learning approach for analyzing multivariate predictors. <i>Molecular Psychiatry</i> , 2021 , 26, 5011-5022	15.1	21
104	Computational modeling of glucose transport in pancreatic β cells identifies metabolic thresholds and therapeutic targets in diabetes. <i>PLoS ONE</i> , 2012 , 7, e53130	3.7	20
103	Closed-loop control and advisory mode evaluation of an artificial pancreatic Beta cell: use of proportional-integral-derivative equivalent model-based controllers. <i>Journal of Diabetes Science and Technology</i> , 2008 , 2, 636-44	4.1	20
102	Systems biology approach to understanding post-traumatic stress disorder. <i>Molecular BioSystems</i> , 2015 , 11, 980-93		19
101	A detailed modular analysis of heat-shock protein dynamics under acute and chronic stress and its implication in anxiety disorders. <i>PLoS ONE</i> , 2012 , 7, e42958	3.7	19
100	Randomized Controlled Trial of Mobile Closed-Loop Control. <i>Diabetes Care</i> , 2020 , 43, 607-615	14.6	19

99	Pulse-coupled time synchronization for distributed acoustic event detection using wireless sensor networks. <i>Control Engineering Practice</i> , 2017 , 60, 106-117	3.9	18
98	An Enhanced Model Predictive Control for the Artificial Pancreas Using a Confidence Index Based on Residual Analysis of Past Predictions. <i>Journal of Diabetes Science and Technology</i> , 2017 , 11, 537-544	4.1	18
97	Online prediction of subcutaneous glucose concentration for type 1 diabetes using empirical models and frequency-band separation. <i>AIChE Journal</i> , 2014 , 60, 574-584	3.6	18
96	MPC Design for Rapid Pump-Attenuation and Expedited Hyperglycemia Response to Treat T1DM with an Artificial Pancreas. <i>Proceedings of the American Control Conference</i> , 2014 , 2014, 4224-4230	1.2	18
95	Embedded Control in Wearable Medical Devices: Application to the Artificial Pancreas. <i>Processes</i> , 2016 , 4, 35	2.9	18
94	Reducing Glucose Variability Due to Meals and Postprandial Exercise in T1DM Using Switched LPV Control: In Silico Studies. <i>Journal of Diabetes Science and Technology</i> , 2016 , 10, 744-53	4.1	18
93	Novel insulin delivery profiles for mixed meals for sensor-augmented pump and closed-loop artificial pancreas therapy for type 1 diabetes mellitus. <i>Journal of Diabetes Science and Technology</i> , 2014 , 8, 957-68	4.1	17
92	Statistical analysis of the pulse-coupled synchronization strategy for wireless sensor networks. <i>IEEE Transactions on Signal Processing</i> , 2013 , 61,	4.8	17
91	Automatic bolus and adaptive basal algorithm for the artificial pancreatic cell. <i>Diabetes Technology and Therapeutics</i> , 2010 , 12, 879-87	8.1	17
90	Circadian rhythm: A natural, robust, multi-scale control system. <i>Computers and Chemical Engineering</i> , 2006 , 30, 1700-1711	4	16
89	Design and Clinical Evaluation of a Novel Low-Glucose Prediction Algorithm with Mini-Dose Stable Glucagon Delivery in Post-Bariatric Hypoglycemia. <i>Diabetes Technology and Therapeutics</i> , 2018 , 20, 127-139	8.1	15
88	Extremum Seeking Control for Personalized Zone Adaptation in Model Predictive Control for Type 1 Diabetes. <i>IEEE Transactions on Biomedical Engineering</i> , 2018 , 65, 1859-1870	5	15
87	A systems theoretic approach to analysis and control of mammalian circadian dynamics. <i>Chemical Engineering Research and Design</i> , 2016 , 116, 48-60	5.5	15
86	Modeling the <i>Drosophila melanogaster</i> circadian oscillator via phase optimization. <i>Journal of Biological Rhythms</i> , 2008 , 23, 525-37	3.2	14
85	Real-Time Detection of Infusion Site Failures in a Closed-Loop Artificial Pancreas. <i>Journal of Diabetes Science and Technology</i> , 2018 , 12, 599-607	4.1	13
84	Modeling the intra- and extracellular cytokine signaling pathway under heat stroke in the liver. <i>PLoS ONE</i> , 2013 , 8, e73393	3.7	13
83	A Randomized, Placebo-Controlled Double-Blind Trial of a Closed-Loop Glucagon System for Postbariatric Hypoglycemia. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2020 , 105,	5.6	13
82	Polygenic risk associated with post-traumatic stress disorder onset and severity. <i>Translational Psychiatry</i> , 2019 , 9, 165	8.6	12

81	A DNA methylation clock associated with age-related illnesses and mortality is accelerated in men with combat PTSD. <i>Molecular Psychiatry</i> , 2021 , 26, 4999-5009	15.1	12
80	Novel Pharmacological Targets for Combat PTSD-Metabolism, Inflammation, The Gut Microbiome, and Mitochondrial Dysfunction. <i>Military Medicine</i> , 2020 , 185, 311-318	1.3	12
79	Vulnerabilities in the tau network and the role of ultrasensitive points in tau pathophysiology. <i>PLoS Computational Biology</i> , 2010 , 6, e1000997	5	12
78	Batch-to-batch control of characteristic points on the PSD in experimental emulsion polymerization. <i>AIChE Journal</i> , 2008 , 54, 3171-3187	3.6	12
77	Hybrid approach to polymer grade transition control. <i>AIChE Journal</i> , 2004 , 50, 2502-2513	3.6	12
76	A review of biomarkers in the context of type 1 diabetes: Biological sensing for enhanced glucose control. <i>Bioengineering and Translational Medicine</i> , 2021 , 6, e10201	14.8	12
75	Velocity-weighting to prevent controller-induced hypoglycemia in MPC of an artificial pancreas to treat T1DM. <i>Proceedings of the American Control Conference</i> , 2015 , 2015, 1635-1640	1.2	11
74	Glycemic Outcomes of Use of CLC Versus PLGS in Type 1 Diabetes: A Randomized Controlled Trial. <i>Diabetes Care</i> , 2020 , 43, 1822-1828	14.6	11
73	Mechanistic inferences on metabolic dysfunction in posttraumatic stress disorder from an integrated model and multiomic analysis: role of glucocorticoid receptor sensitivity. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2019 , 317, E879-E898	6	11
72	Quantifying Stochastic Noise in Cultured Circadian Reporter Cells. <i>PLoS Computational Biology</i> , 2015 , 11, e1004451	5	11
71	Reachability of particle size distribution in semibatch emulsion polymerization. <i>AIChE Journal</i> , 2004 , 50, 3049-3059	3.6	11
70	Pharmaceutical-based entrainment of circadian phase via nonlinear model predictive control. <i>Automatica</i> , 2019 , 100, 336-348	5.7	11
69	Role of enhanced glucocorticoid receptor sensitivity in inflammation in PTSD: insights from computational model for circadian-neuroendocrine-immune interactions. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2020 , 319, E48-E66	6	10
68	Closed-Loop Control Performance of the Hypoglycemia-Hyperglycemia Minimizer (HHM) System in a Feasibility Study. <i>Journal of Diabetes Science and Technology</i> , 2014 , 8, 35-42	4.1	10
67	The Effect of Two Types of Pasta Versus White Rice on Postprandial Blood Glucose Levels in Adults with Type 1 Diabetes: A Randomized Crossover Trial. <i>Diabetes Technology and Therapeutics</i> , 2019 , 21, 485-492	8.1	9
66	Estimating confidence intervals in predicted responses for oscillatory biological models. <i>BMC Systems Biology</i> , 2013 , 7, 71	3.5	9
65	Tackling problem nonlinearities & delays via asymmetric, state-dependent objective costs in MPC of an artificial pancreas. <i>IFAC-PapersOnLine</i> , 2015 , 48, 154-159	0.7	9
64	An advisory protocol for rapid- and slow-acting insulin therapy based on a run-to-run methodology. <i>Diabetes Technology and Therapeutics</i> , 2010 , 12, 555-65	8.1	9

63	Preliminary Evaluation of a Long-Term Intraperitoneal Glucose Sensor With Flushing Mechanism. <i>Journal of Diabetes Science and Technology</i> , 2016 , 10, 1192-4	4.1	9
62	The International Diabetes Closed-Loop Study: Testing Artificial Pancreas Component Interoperability. <i>Diabetes Technology and Therapeutics</i> , 2019 , 21, 73-80	8.1	9
61	Robust multi-drug therapy design and application to insulin resistance in type 2 diabetes. <i>International Journal of Robust and Nonlinear Control</i> , 2011 , 21, 1730-1741	3.6	8
60	Modeling and Sensitivity Analysis of Particle Size Distribution and Chain Length Distribution in a Semibatch Emulsion Copolymerization Reactor. <i>Macromolecular Theory and Simulations</i> , 2005 , 14, 474-490 ⁵	1.5	8
59	A dual-feedback loop model of the mammalian circadian clock for multi-input control of circadian phase. <i>PLoS Computational Biology</i> , 2020 , 16, e1008459	5	8
58	Minority groups and the artificial pancreas: who is (not) in line?. <i>Lancet Diabetes and Endocrinology</i> , 2016 , 4, 880-881	18.1	8
57	Multivariate learning framework for long-term adaptation in the artificial pancreas. <i>Bioengineering and Translational Medicine</i> , 2019 , 4, 61-74	14.8	8
56	Design of an Artificial Pancreas using Zone Model Predictive Control with a Moving Horizon State Estimator 2014 , 2014, 6975-6980	1.3	7
55	Mass and heat transfer modeling of a physical vapor deposition effusion source. <i>AIChE Journal</i> , 2005 , 51, 878-894	3.6	7
54	A Coupled Stochastic Model Explains Differences in Cry Knockout Behavior. <i>IEEE Life Sciences Letters</i> , 2015 , 1, 3-6		6
53	Moving-horizon-like state estimation via continuous glucose monitor feedback in MPC of an artificial pancreas for type 1 diabetes 2014 , 2014, 310-315	1.3	6
52	Bio-inspired hybrid control of pulse-coupled oscillators and application to synchronization of a wireless network 2012 ,		6
51	2017 ,		5
50	A Personalized Week-to-Week Updating Algorithm to Improve Continuous Glucose Monitoring Performance. <i>Journal of Diabetes Science and Technology</i> , 2017 , 11, 1070-1079	4.1	5
49	Getting IoT-ready: The face of next generation artificial pancreas systems 2019 , 29-57		5
48	Epigenetic biotypes of post-traumatic stress disorder in war-zone exposed veteran and active duty males. <i>Molecular Psychiatry</i> , 2021 , 26, 4300-4314	15.1	5
47	Gaussian process-based model predictive control of blood glucose for patients with type 1 diabetes mellitus 2017 ,		5
46	Empirical Dynamic Model Identification for Blood-Glucose Dynamics in Response to Physical Activity 2015 , 2015, 3834-3839	1.3	5

45	Theoretical analysis of insulin-dependent glucose uptake heterogeneity in 3D bioreactor cell culture. <i>Biotechnology Progress</i> , 2012 , 28, 833-45	2.8	5
44	More Time in Glucose Range During Exercise Days than Sedentary Days in Adults Living with Type 1 Diabetes. <i>Diabetes Technology and Therapeutics</i> , 2021 , 23, 376-383	8.1	5
43	Longitudinal Observation of Insulin Use and Glucose Sensor Metrics in Pregnant Women with Type 1 Diabetes Using Continuous Glucose Monitors and Insulin Pumps: The LOIS-P Study. <i>Diabetes Technology and Therapeutics</i> , 2021 , 23, 807-817	8.1	5
42	Controlling Biological Time: Nonlinear Model Predictive Control for Populations of Circadian Oscillators. <i>Lecture Notes in Control and Information Sciences - Proceedings</i> , 2018 , 123-138	0.2	4
41	Nonlinear Model Predictive Control For Circadian Entrainment Using Small-Molecule Pharmaceuticals. <i>IFAC-PapersOnLine</i> , 2017 , 50, 9864-9870	0.7	4
40	A New Animal Model of Insulin-Glucose Dynamics in the Intraperitoneal Space Enhances Closed-Loop Control Performance. <i>Journal of Process Control</i> , 2019 , 76, 62-73	3.9	4
39	Embedded Model Predictive Control for a Wearable Artificial Pancreas. <i>IEEE Transactions on Control Systems Technology</i> , 2020 , 28, 2600-2607	4.8	4
38	Effect of Combat Exposure and Posttraumatic Stress Disorder on Telomere Length and Amygdala Volume. <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i> , 2020 , 5, 678-687	3.4	4
37	Modeling the inflammatory response in the hypothalamus ensuing heat stroke: iterative cycle of model calibration, identifiability analysis, experimental design and data collection. <i>Mathematical Biosciences</i> , 2015 , 260, 35-46	3.9	3
36	Body Mass Index Effect on Differing Responses to Psychological Stress in Blood Glucose Dynamics in Patients With Type 1 Diabetes. <i>Journal of Diabetes Science and Technology</i> , 2018 , 12, 657-664	4.1	3
35	Randomized Crossover Comparison of Automated Insulin Delivery Versus Conventional Therapy Using an Unlocked Smartphone with Scheduled Pasta and Rice Meal Challenges in the Outpatient Setting. <i>Diabetes Technology and Therapeutics</i> , 2020 , 22, 865-874	8.1	3
34	A classification approach to estimating human circadian phase under circadian alignment from actigraphy and photometry data. <i>Journal of Pineal Research</i> , 2021 , 71, e12745	10.4	3
33	Assessing Mealtime Macronutrient Content: Patient Perceptions Versus Expert Analyses via a Novel Phone App. <i>Diabetes Technology and Therapeutics</i> , 2021 , 23, 85-94	8.1	3
32	Modeling the Influence of Chronic Sleep Restriction on Cortisol Circadian Rhythms, with Implications for Metabolic Disorders. <i>Metabolites</i> , 2021 , 11,	5.6	3
31	Review of Automated Insulin Delivery Systems for Individuals with Type 1 Diabetes: Tailored Solutions for Subpopulations. <i>Current Opinion in Biomedical Engineering</i> , 2021 , 19,	4.4	3
30	Compensating for Sensor Error in the Model Predictive Control of Circadian Clock Phase 2019 , 3, 853-858		2
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