

CITATION REPORT

List of articles citing

Minimal model for membrane oscillations in the pancreatic beta-cell

DOI: 10.1016/s0006-3495(83)84384-7
Biophysical Journal, 1983, 42, 181-90.

Source: <https://exaly.com/paper-pdf/16418243/citation-report.pdf>

Version: 2024-04-28

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

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

#	Paper	IF	Citations
419	On the mechanism of spiking and bursting in excitable cells. 1983 , 18, 25-34		14
418	Abnormal discharges and chaos in a neuronal model system. <i>Biological Cybernetics</i> , 1984 , 50, 301-11	2.8	33
417	Impulse responses of automaticity in the Purkinje fiber. <i>Biophysical Journal</i> , 1984 , 45, 841-9	2.9	27
416	Regulation of insulin secretion by energy metabolism in pancreatic B-cell mitochondria. Studies with a non-metabolizable leucine analogue. 1984 , 219, 189-96		61
415	Glucose response to bursting-spiking pancreatic beta-cells by a barrier kinetic model. <i>Biological Cybernetics</i> , 1985 , 52, 339-49	2.8	19
414	Chaos in a three-variable model of an excitable cell. 1985 , 16, 233-242		220
413	Coupling of a slow and a fast oscillator can generate bursting. 1985 , 47, 1-21		22
412	Bursting oscillations in an excitable membrane model. 1985 , 304-316		162
411	Theory of the effect of extracellular potassium on oscillations in the pancreatic beta-cell. <i>Biophysical Journal</i> , 1985 , 48, 815-27	2.9	46
410	Bursting, beating, and chaos in an excitable membrane model. <i>Biophysical Journal</i> , 1985 , 47, 357-66	2.9	203
409	Modulation of K ⁺ conductance by intracellular pH in pancreatic beta-cells. 1986 , 200, 203-9		23
408	On the effect of the intracellular calcium-sensitive K ⁺ channel in the bursting pancreatic beta-cell. <i>Biophysical Journal</i> , 1986 , 50, 765-77	2.9	33
407	Calcium and delayed potassium currents in mouse pancreatic beta-cells under voltage-clamp conditions. 1986 , 374, 531-50		320
406	Theoretical studies on the electrical activity of pancreatic beta-cells as a function of glucose. <i>Biophysical Journal</i> , 1987 , 51, 89-107	2.9	31
405	Dissection of a model for neuronal parabolic bursting. 1987 , 25, 653-75		199
404	From simple to complex oscillatory behaviour: analysis of bursting in a multiply regulated biochemical system. 1987 , 124, 219-50		67
403	The effect of inactivation of calcium channels by intracellular Ca ²⁺ ions in the bursting pancreatic beta-cells. 1987 , 11, 77-90		28

402	Model of oscillatory activity in thalamic neurons: role of voltage- and calcium-dependent ionic conductances. <i>Biological Cybernetics</i> , 1988 , 58, 243-59	2.8	7
401	Electrical activity and insulin release in pancreatic beta cells. 1988 , 90, 127-138		12
400	Endogenous bursting patterns in excitable cells. 1988 , 90, 139-153		49
399	Emergence of organized bursting in clusters of pancreatic beta-cells by channel sharing. <i>Biophysical Journal</i> , 1988 , 54, 411-25	2.9	252
398	Role of single-channel stochastic noise on bursting clusters of pancreatic beta-cells. <i>Biophysical Journal</i> , 1988 , 54, 427-35	2.9	48
397	Glucose-induced oscillations of cytoplasmic Ca ²⁺ in the pancreatic beta-cell. 1988 , 151, 1299-304		152
396	Solving the Hodgkin-Huxley Equations by a Random Walk Method. 1988 , 9, 170-190		11
395	Mechanisms for the interaction between nonstationary electric fields and biological systems II. Nonlinear dielectric theory and free-energy transduction. 1988 , 86, 79-101		32
394	Mathematical modelling of stimulus-secretion coupling in the pancreatic B-cell VI. Cellular heterogeneity and recruitment. 1989 , 13, 41-46		2
393	Calcium current inactivation in insulin-secreting cells is mediated by calcium influx and membrane depolarization. 1989 , 414, 1-10		73
392	ATP-sensitive potassium channel and bursting in the pancreatic beta cell. A theoretical study. <i>Biophysical Journal</i> , 1989 , 56, 229-42	2.9	109
391	Three types of cytoplasmic Ca ²⁺ oscillations in stimulated pancreatic beta-cells. 1989 , 268, 404-7		91
390	Glucose-induced oscillations of intracellular Ca ²⁺ concentration resembling bursting electrical activity in single mouse islets of Langerhans. 1989 , 259, 19-23		169
389	Modulation of the frequency of glucose-dependent bursts of electrical activity by HCO ₃ /CO ₂ in rodent pancreatic B-cells: experimental and theoretical results. 1990 , 18, 71-7		4
388	Multiple modes of a conditional neural oscillator. <i>Biological Cybernetics</i> , 1990 , 63, 25-34	2.8	33
387	Bursting excitable cell models by a slow Ca ²⁺ current. 1990 , 142, 305-15		31
386	Effect of compartmentalized Ca ²⁺ ions on electrical bursting activity of pancreatic beta-cells. 1990 , 258, C955-65		19
385	The Numerical Computation of Connecting Orbits in Dynamical Systems. 1990 , 10, 379-405		198

384	Domain model for Ca ²⁺ (+)-inactivation of Ca ²⁺ channels at low channel density. <i>Biophysical Journal</i> , 1990 , 58, 985-95	2.9	93
383	Modeling the repetitive firing of retinal ganglion cells. 1990 , 510, 343-5		70
382	On the Resonance Structure in a Forced Excitable System. 1990 , 50, 1373-1418		68
381	Chaotic Spikes Arising from a Model of Bursting in Excitable Membranes. 1991 , 51, 1418-1450		156
380	Pancreatic B cells are bursting, but how?. 1991 , 14, 411-4		72
379	An experimental test of a model for repeated Ca ²⁺ spikes in osteoblastic cells. 1991 , 69, 433-41		4
378	Model for synchronization of pancreatic beta-cells by gap junction coupling. <i>Biophysical Journal</i> , 1991 , 59, 547-59	2.9	157
377	Propagation of cytoplasmic Ca ²⁺ oscillations in clusters of pancreatic beta-cells exposed to glucose. 1991 , 12, 229-40		136
376	Ba(2+)-induced action potentials in osteoblastic cells. 1991 , 123, 255-9		7
375	Charybdotoxin-sensitive K(Ca) channel is not involved in glucose-induced electrical activity in pancreatic beta-cells. 1991 , 119, 187-95		62
374	Widespread synchronous [Ca ²⁺] _i oscillations due to bursting electrical activity in single pancreatic islets. 1991 , 418, 417-22		284
373	On the dynamics of bursting systems. 1991 , 29, 405-23		26
372	Bursting electrical activity in pancreatic beta cells caused by Ca(2+)- and voltage-inactivated Ca ²⁺ channels. 1991 , 88, 3897-901		50
371	Differential Equations Models in Biology, Epidemiology and Ecology. 1991 ,		6
370	Neural Network Model Carrying Phase Information with Application to Collective Dynamics. 1992 , 87, 1119-1126		11
369	Perturbation Techniques for Models of Bursting Electrical Activity in Pancreatic β -Cells. 1992 , 52, 1627-1650		35
368	Propagation of a calcium pulse between osteoblastic cells. 1992 , 186, 1212-9		98
367	A membrane model for cytosolic calcium oscillations. A study using <i>Xenopus oocytes</i> . <i>Biophysical Journal</i> , 1992 , 63, 235-46	2.9	50

366	Apamin-sensitive potassium channels mediate agonist-induced oscillations of membrane potential in pituitary gonadotrophs. 1992 , 301, 19-22		54
365	Protein kinase C activity affects glucose-induced oscillations in cytoplasmic free Ca ²⁺ in the pancreatic B-cell. 1992 , 303, 85-90		28
364	Slow voltage inactivation of Ca ²⁺ currents and bursting mechanisms for the mouse pancreatic beta-cell. 1992 , 127, 9-19		61
363	Chaotic nature of bursting discharges in the Onchidium pacemaker neuron. 1992 , 156, 269-291		81
362	Minimal model for Ca(2+)-dependent oscillations in excitable cells. 1992 , 156, 309-26		6
361	Crisis-induced chaos in the Rose-Hindmarsh model for neuronal activity. <i>Chaos, Solitons and Fractals</i> , 1992 , 2, 583-595	9.3	48
360	Molecular recognition and processing of periodic signals in cells: study of activation of membrane ATPases by alternating electric fields. 1992 , 1113, 53-70		48
359	The transition from bursting to continuous spiking in excitable membrane models. 1992 , 2, 135-182		141
358	Genesis of bursting oscillations in the Hindmarsh-Rose model and homoclinicity to a chaotic saddle. 1993 , 62, 263-274		125
357	Bifurcations, burstings, chaos and crises in the Rose-Hindmarsh model for neuronal activity. <i>Chaos, Solitons and Fractals</i> , 1993 , 3, 439-449	9.3	67
356	A computational study of the effects of serotonin on a molluscan burster neuron. <i>Biological Cybernetics</i> , 1993 , 69, 257-267	2.8	26
355	Bursting electrical activity in pancreatic beta-cells: evidence that the channel underlying the burst is sensitive to Ca ²⁺ influx through L-type Ca ²⁺ channels. 1993 , 424, 439-47		29
354	Effect of voltage-gated plasma membrane Ca ²⁺ fluxes on IP ₃ -linked Ca ²⁺ oscillations. 1993 , 14, 397-410		31
353	Homoclinic twisting bifurcations and cusp horseshoe maps. 1993 , 5, 417-467		32
352	Diffusion of extracellular K ⁺ can synchronize bursting oscillations in a model islet of Langerhans. <i>Biophysical Journal</i> , 1993 , 65, 597-607	2.9	26
351	Why pancreatic islets burst but single beta cells do not. The heterogeneity hypothesis. <i>Biophysical Journal</i> , 1993 , 64, 1668-80	2.9	141
350	Metabolic regulation of intracellular calcium concentration in mouse pancreatic islets of Langerhans. 1994 , 267, E769-74		13
349	Numerical analysis of homoclinic orbits emanating from a Takens-Bogdanov point. 1994 , 14, 381-410		22

348	Generation of periodic and chaotic bursting in an excitable cell model. <i>Biological Cybernetics</i> , 1994 , 71, 417-31	2.8	64
347	Anti-phase, asymmetric and aperiodic oscillations in excitable cells--I. Coupled bursters. 1994 , 56, 811-35		69
346	On the origin and dynamics of the vasomotion of small arteries. 1994 , 119, 127-67		67
345	A mathematical model that mimics the bursting oscillations in pancreatic beta-cells. 1994 , 119, 241-50		7
344	Fast Subsystem Bifurcations in a Slowly Varying Liñard System Exhibiting Bursting. 1994 , 54, 814-832		36
343	Analysis of the effects of modulatory agents on a modeled bursting neuron: dynamic interactions between voltage and calcium dependent systems. 1995 , 2, 19-44		34
342	Correlations of rates of insulin release from islets and plateau fractions for beta-cells. 1995 , 57, 229-46		15
341	Dynamical models of movement coordination. 1995 , 14, 573-608		248
340	Modeling N-methyl-D-aspartate-induced bursting in dopamine neurons. 1996 , 71, 397-410		75
339	Model predictions of myoelectrical activity of the small bowel. <i>Biological Cybernetics</i> , 1996 , 74, 167-79	2.8	7
338	Modeling triggered cardiac activity: an analysis of the interactions between potassium blockade, rhythm pauses, and cellular coupling. 1996 , 137, 101-33		3
337	References. 1996 , 526-588		
336	Contributions of modeling to understanding stimulus-secretion coupling in pancreatic beta-cells. 1996 , 271, E362-72		45
335	Electrical activity of the sensory afferent pathway in the enteric nervous system. <i>Biological Cybernetics</i> , 1996 , 75, 471-83	2.8	11
334	Dissection and reduction of a modeled bursting neuron. 1996 , 3, 199-223		19
333	Detection of slow-fast limit cycles in a model for electrical activity in the pancreatic β -cell. 1996 , 13, 1-21		5
332	Interaction of adiabatic phantom attractors. 1996 , 9, 739-759		3
331	Balance between intercellular coupling and input resistance as a necessary requirement for oscillatory electrical activity in pancreatic β -cells. 1997 , 146-153		

330	Glucose metabolism regulates cytosolic Ca ²⁺ in the pancreatic beta-cell by three different mechanisms. 1997 , 426, 235-43		4
329	Implementing neural firing: Towards a new technology. 1997 , 26, 113-124		3
328	Minimal Model for Oscillations of Membrane Voltage in Plant Cells. 1997 , 188, 323-332		18
327	Reduction of a model for an Onchidium pacemaker neuron. <i>Biological Cybernetics</i> , 1998 , 78, 265-76	2.8	8
326	Analysis of a Class of Models of Bursting Electrical Activity in Pancreatic β -Cells. 1998 , 58, 607-635		9
325	Mathematical Physiology. 1998 ,		853
324	Calcium dynamics underlying pacemaker-like and burst firing oscillations in midbrain dopaminergic neurons: a computational study. 1999 , 82, 2249-61		84
323	Uniqueness and stability of periodic bursting solutions. 1999 , 158, 48-78		22
322	An Application of Conley Index Techniques to a Model of Bursting in Excitable Membranes. 2000 , 162, 451-472		4
321	Dynamical complexity and temporal plasticity in pancreatic β -cells. <i>Journal of Biosciences</i> , 2000 , 25, 197-209	2.3	28
320	The phantom burster model for pancreatic beta-cells. <i>Biophysical Journal</i> , 2000 , 79, 2880-92	2.9	88
319	NEURAL EXCITABILITY, SPIKING AND BURSTING. 2000 , 10, 1171-1266		1308
318	Excitation wave propagation as a possible mechanism for signal transmission in pancreatic islets of Langerhans. <i>Biophysical Journal</i> , 2001 , 80, 1195-209	2.9	49
317	From simple to complex oscillatory behavior in metabolic and genetic control networks. <i>Chaos</i> , 2001 , 11, 247-260	3.3	75
316	Belousov-Zhabotinsky Oscillations in Bromated Oxalic Acid-MnSO ₄ -H ₂ SO ₄ -Acetone System in Nonionic Surfactant Medium. A Calorimetric Study. 2001 , 105, 8857-8863		9
315	Model of gamma frequency burst discharge generated by conditional backpropagation. 2001 , 86, 1523-45		55
314	Complex nonlinear dynamics of the Hodgkin-Huxley equations induced by time scale changes. <i>Biological Cybernetics</i> , 2001 , 85, 51-64	2.8	34
313	Bifurcation structure of a model of bursting pancreatic cells. 2001 , 63, 3-13		55

312	Minimal model for intracellular calcium oscillations and electrical bursting in melanotrope cells of <i>Xenopus laevis</i> . 2001 , 13, 113-37		22
311	Autonomous bursting in a homoclinic system. 2002 , 88, 144101		27
310	Optimal intracellular calcium signaling. 2002 , 88, 068102		149
309	COUPLED PANCREATIC CELLS. 2002 , 177-209		1
308	Calcium-activated K ⁺ channels of mouse beta-cells are controlled by both store and cytoplasmic Ca ²⁺ : experimental and theoretical studies. 2002 , 120, 307-22		59
307	Geometric Singular Perturbation Analysis of Neuronal Dynamics. 2002 , 2, 93-146		30
306	A model for glucose-induced wave propagation in pancreatic islets of Langerhans. 2002 , 215, 273-86		8
305	Analysis of excitable cell models. 2002 , 144, 29-47		9
304	Bursting Oscillations during Metal Electrodeposition: Experiments and Model. 2003 , 107, 6648-6659		20
303	Dynamics from a time series: can we extract the phase resetting curve from a time series?. <i>Biophysical Journal</i> , 2003 , 84, 2919-28	2.9	37
302	Analysis of the effect of calcium stores on the bursting of a pancreatic /spl beta/-cells cluster.		
301	Parameter estimation for a pancreatic /spl beta/-cell model by gradient-descent learning with line search.		0
300	Bursting Oscillations in Two Coupled FitzHugh-Nagumo Systems. 2003 , 1, 101-111		10
299	Altered neuronal excitability in cerebellar granule cells of mice lacking calretinin. 2003 , 23, 9320-7		106
298	Analysis of the noise-induced bursting-spiking transition in a pancreatic beta-cell model. 2004 , 69, 041910		18
297	Food chain chaos with canard explosion. <i>Chaos</i> , 2004 , 14, 1083-92	3.3	40
296	Molecular modeling correctly predicts the functional importance of Phe594 in transmembrane helix 11 of the multidrug resistance protein, MRP1 (ABCC1). 2004 , 279, 463-8		53
295	Complex bursting in pancreatic islets: a potential glycolytic mechanism. 2004 , 228, 513-21		33

294	A calcium-based phantom bursting model for pancreatic islets. 2004 , 66, 1313-44		85
293	Minimal Models of Bursting Neurons: How Multiple Currents, Conductances, and Timescales Affect Bifurcation Diagrams. 2004 , 3, 636-670		44
292	NEGATIVE CALCIUM FEEDBACK: THE ROAD FORM CHAY-KEIZER. 2005 , 19-48		27
291	Reduction of a model of an excitable cell to a one-dimensional map. 2005 , 202, 37-59		34
290	Generation of very slow neuronal rhythms and chaos near the Hopf bifurcation in single neuron models. 2005 , 19, 325-56		23
289	Integrative modeling of the pancreatic β cell. 2005 ,		1
288	Role of calcium binding proteins in the control of cerebellar granule cell neuronal excitability: experimental and modeling studies. 2005 , 148, 321-8		26
287	Pharmacological properties and functional role of K_{slow} current in mouse pancreatic beta-cells: SK channels contribute to K_{slow} tail current and modulate insulin secretion. 2005 , 126, 353-63		61
286	Improved parameter estimation for systems with an experimentally located Hopf bifurcation. 2005 , 152, 161-8		3
285	How noise and coupling induce bursting action potentials in pancreatic β -cells. <i>Biophysical Journal</i> , 2005 , 89, 1534-42	2.9	31
284	Course 2 Understanding neuronal dynamics by geometrical dissection of minimal models. 2005 , 17-72		31
283	An Introduction to Dynamical Systems and Neuronal Dynamics. 2005 , 21-68		32
282	Electrochemical bursting oscillations on a high-dimensional slow subsystem. 2006 , 8, 2707-15		15
281	Towards an ultra low power chemically inspired electronic beta cell for diabetes.		2
280	Return Map Characterizations for a Model of Bursting with Two Slow Variables. 2006 , 66, 1917-1948		10
279	Diffusion of calcium and metabolites in pancreatic islets: killing oscillations with a pitchfork. <i>Biophysical Journal</i> , 2006 , 90, 3434-46	2.9	72
278	Computation of the topological entropy in chaotic biophysical bursting models for excitable cells. 2006 , 2006, 1-18		1
277	Physiological Systems Modeling. 2006 ,		

276	Modelling the electrical activity of pancreatic alpha-cells based on experimental data from intact mouse islets. 2006 , 32, 209-29		21
275	Codimension-two bifurcation analysis on firing activities in Chay neuron model. <i>Chaos, Solitons and Fractals</i> , 2006 , 30, 1172-1179	9.3	25
274	Mathematical simulation of membrane processes and metabolic fluxes of the pancreatic beta-cell. 2006 , 68, 1779-818		29
273	Modulation of neuronal excitability by intracellular calcium buffering: from spiking to bursting. 2006 , 39, 455-66		40
272	Diethyl pyrocarbonate, a histidine-modifying agent, directly stimulates activity of ATP-sensitive potassium channels in pituitary GH(3) cells. 2006 , 71, 615-23		17
271	Complex dynamics of a single neuron model. 2006 , 74, 041914		2
270	Generalization of coupled spiking models and effects of the width of an action potential on synchronization phenomena. 2007 , 75, 011909		20
269	A silicon pancreatic Beta cell for diabetes. 2007 , 1, 39-49		29
268	Dynamical phases of the Hindmarsh-Rose neuronal model: studies of the transition from bursting to spiking chaos. <i>Chaos</i> , 2007 , 17, 043128	3.3	103
267	Bifurcation Analysis of the Hodgkin-Huxley Model Exposed to External DC Electric Field. 2007 ,		3
266	The electrophysiology of the beta-cell based on single transmembrane protein characteristics. <i>Biophysical Journal</i> , 2007 , 93, 2952-68	2.9	28
265	Computational model predicts a role for ERG current in repolarizing plateau potentials in dopamine neurons: implications for modulation of neuronal activity. 2007 , 98, 3006-22		36
264	Mechanism of spontaneous and receptor-controlled electrical activity in pituitary somatotrophs: experiments and theory. 2007 , 98, 131-44		85
263	Phantom bursting is highly sensitive to noise and unlikely to account for slow bursting in beta-cells: considerations in favor of metabolically driven oscillations. 2007 , 248, 391-400		16
262	Effects of both glucose and IP3 concentrations on action potentials in pancreatic beta-cells. 2007 , 36, 187-97		7
261	Low dose of dopamine may stimulate prolactin secretion by increasing fast potassium currents. 2007 , 22, 211-22		43
260	RyR channels and glucose-regulated pancreatic beta-cells. 2008 , 37, 773-82		8
259	Resetting behavior in a model of bursting in secretory pituitary cells: distinguishing plateaus from pseudo-plateaus. 2008 , 70, 68-88		36

258	A phantom bursting mechanism for episodic bursting. 2008 , 70, 1979-93		20
257	Complex evolution of spike patterns during burst propagation through feed-forward networks. <i>Biological Cybernetics</i> , 2008 , 99, 105-14	2.8	9
256	The hyperbolic effect of density and strength of inter beta-cell coupling on islet bursting: a theoretical investigation. 2008 , 5, 17		8
255	Bursting and synchronization transition in the coupled modified ML neurons. 2008 , 13, 1668-1675		38
254	A Barrier Kinetic Mapping Unit: Application to Ionic Transport in Gastric Smooth Muscle. 2008 , 3, 213-224		2
253	Two-parameter bifurcation analysis of firing activities in the Chay neuronal model. 2008 , 72, 341-351		53
252	Brain Dynamics. 2008 ,		
251	METHODS OF THE QUALITATIVE THEORY FOR THE HINDMARSH-ROSE MODEL: A CASE STUDY IN A TUTORIAL. 2008 , 18, 2141-2168		109
250	The Geometry of Bursting in the Dual Oscillator Model of Pancreatic β -cells. 2009 , 8, 1664-1693		17
249	Conceptual circuit models of neurons. 2009 , 8, 255-97		5
248	A benchtop closed-loop system controlled by a bio-inspired silicon implementation of the pancreatic beta cell. 2009 , 3, 1419-24		4
247	Contributions of mathematical modeling of beta cells to the understanding of beta-cell oscillations and insulin secretion. 2009 , 3, 12-20		29
246	Putting the pieces together in diabetes research: towards a hierarchical model of whole-body glucose homeostasis. 2009 , 36, 91-104		23
245	Mathematical modeling of electrical activity of uterine muscle cells. 2009 , 47, 665-75		43
244	Phase-locking and chaos in a silent Hodgkin-Huxley neuron exposed to sinusoidal electric field. <i>Chaos, Solitons and Fractals</i> , 2009 , 39, 454-462	9.3	28
243	Pancreas Modeling from IVGTT Data Using a Deterministic Optimal Search Method. 2009 ,		
242	Correlation analysis a tool for comparing relaxation-type models to experimental data. 2009 , 467, 1-22		2
241	A model of action potentials and fast Ca^{2+} dynamics in pancreatic beta-cells. <i>Biophysical Journal</i> , 2009 , 96, 3126-39	2.9	34

240	Accounting for near-normal glucose sensitivity in Kir6.2[AAA] transgenic mice. <i>Biophysical Journal</i> , 2009 , 97, 2409-18	2.9	8
239	Topological entropy and the controlled effect of glucose in the electrical activity of pancreatic . 2009 , 238, 2129-2137		3
238	Analyzing Neuronal Networks Using Discrete-Time Dynamics. 2010 , 239, 515-528		14
237	First return maps for the dynamics of synaptically coupled conditional bursters. <i>Biological Cybernetics</i> , 2010 , 103, 87-104	2.8	7
236	Robustness and breakup of the spiral wave in a two-dimensional lattice network of neurons. 2010 , 53, 672-679		34
235	Epilepsy. 2010 , 159-200		
234	Full system bifurcation analysis of endocrine bursting models. 2010 , 264, 1133-46		71
233	Glucose sensing in the pancreatic beta cell: a computational systems analysis. 2010 , 7, 15		24
232	Dynamics of plateau bursting depending on the location of its equilibrium. 2010 , 22, 1301-14		25
231	METASTABILITY AND PLASTICITY IN SOME CONCEPTUAL MODELS OF NEURONS. 2010 , 09, 31-47		3
230	Modeling of the gap junction of pancreatic β cells and the robustness of insulin secretion. 2010 , 6, 37-51		4
229	Bursting and calcium oscillations in pancreatic beta-cells: specific pacemakers for specific mechanisms. 2010 , 299, E517-32		54
228	Electrophysiology of islet cells. 2010 , 654, 115-63		102
227	A biophysical model of electrical activity in human β cells. <i>Biophysical Journal</i> , 2010 , 99, 3200-7	2.9	47
226	Lessons from models of pancreatic beta cells for engineering glucose-sensing cells. 2010 , 227, 12-9		9
225	Harmonic stochastic resonance-enhanced signal detecting in NW small-world neural network. 2010 , 19, 110515		8
224	A silicon pancreatic beta cell based on the phantom bursting model. 2011 ,		
223	Dynamical Instabilities in Electrochemical Processes. 2011 , 125-178		12

222	Pancreas modelling by a deterministic optimisation method. 2011 , 5, 308-20	
221	Signaling diversity of PKA achieved via a Ca ²⁺ -cAMP-PKA oscillatory circuit. 2011 , 7, 34-40	99
220	Analyzing electrical activities of pancreatic β cells using mathematical models. 2011 , 107, 265-73	14
219	Stochastic amplification of calcium-activated potassium currents in Ca ²⁺ microdomains. 2011 , 31, 647-66	6
218	Slow variable dominance and phase resetting in phantom bursting. 2011 , 276, 218-28	23
217	Dynamical analysis of bursting oscillations in the Chay-Keizer model with three time scales. 2011 , 54, 2024-2032	13
216	From plateau to pseudo-plateau bursting: making the transition. 2011 , 73, 1292-311	27
215	Changes in the criticality of Hopf bifurcations due to certain model reduction techniques in systems with multiple timescales. 2011 , 1, 9	13
214	Neural spike renormalization. Part II \square Multiversal chaos. 2011 , 250, 2958-2968	1
213	Mathematical modeling demonstrates how multiple slow processes can provide adjustable control of islet bursting. 2011 , 3, 320-6	1
212	Ionic mechanisms and Ca ²⁺ dynamics underlying the glucose response of pancreatic β cells: a simulation study. 2011 , 138, 21-37	48
211	Time-dependent changes in membrane excitability during glucose-induced bursting activity in pancreatic β cells. 2011 , 138, 39-47	24
210	FOLD \square OPF BIFURCATIONS OF THE ROSE \square INDMARSH MODEL WITH TIME DELAY. 2011 , 21, 437-452	16
209	Dynamical systems theory in physiology. 2011 , 138, 13-9	18
208	BIFURCATION MECHANISMS OF ELECTRICAL BURSTING WITH DIFFERENT-TIME-SCALE SLOW VARIABLES. 2011 , 21, 1407-1425	6
207	Parameters Estimation and Dynamics Control of Chay Model Using UKF. 2012 , 462, 693-700	2
206	Buffering capacity explains signal variation in symbiotic calcium oscillations. 2012 , 160, 2300-10	28
205	Complex dynamics of compound bursting with burst episode composed of different bursts. 2012 , 70, 2003-2013	10

204	Mathematical models for insulin secretion in pancreatic β cells. 2012 , 4, 94-107		8
203	The relationship between two fast/slow analysis techniques for bursting oscillations. <i>Chaos</i> , 2012 , 22, 043117	3.3	33
202	Kinetics of Ion Pumps and Channels. 2012 , 123-171		
201	Control of Intracellular Calcium Oscillations. 2012 , 173-188		
200	Nonsmooth dynamics in spiking neuron models. 2012 , 241, 2042-2057		54
199	Advances in Neural Networks \square SNN 2012. 2012 ,		1
198	Principles of model building: an experimentation-aided approach to development of models for signaling networks. 2012 , 110, 1-17		3
197	CROSS-CURRENTS BETWEEN BIOLOGY AND MATHEMATICS: THE CODIMENSION OF PSEUDO-PLATEAU BURSTING. 2012 , 32, 2853-2877		30
196	Shaping bursting by electrical coupling and noise. <i>Biological Cybernetics</i> , 2012 , 106, 67-88	2.8	13
195	Bifurcations in the Hodgkin-Huxley model exposed to DC electric fields. 2012 , 81, 41-48		13
194	Symmetric bursting behaviors in the generalized FitzHugh-Nagumo model. <i>Biological Cybernetics</i> , 2013 , 107, 465-76	2.8	17
193	Nonlinear Dynamics of Neuronal Excitability, Oscillations, and Coincidence Detection. 2013 , 66, 1464-1494		15
192	Cooperation of intrinsic bursting and calcium oscillations underlying activity patterns of model pre-B ζ complex neurons. 2013 , 34, 345-66		25
191	Improving noise resistance of intrinsic rhythms in a square-wave burster model. 2013 , 112, 276-83		1
190	Ion channels and regulation of insulin secretion in human β cells: a computational systems analysis. 2013 , 5, 1-15		55
189	A stochastic mathematical model to study the autoimmune progression towards type 1 diabetes. 2013 , 29, 194-203		7
188	Equilibrium Point Bifurcation and Singularity Analysis of HH Model with Constraint. 2014 , 2014, 1-8		1
187	Bistable dynamics underlying excitability of ion homeostasis in neuron models. 2014 , 10, e1003551		32

186	Mathematical modeling of heterogeneous electrophysiological responses in human β cells. 2014 , 10, e1003389		45
185	Computational modeling of inhibition of voltage-gated Ca channels: identification of different effects on uterine and cardiac action potentials. 2014 , 5, 399		3
184	Noise, transient dynamics, and the generation of realistic interspike interval variation in square-wave burster neurons. 2014 , 90, 042718		4
183	Calcium and Metabolic Oscillations in Pancreatic Islets: Who's Driving the Bus?. 2014 , 13, 683-703		14
182	Global Isochrons and Phase Sensitivity of Bursting Neurons. 2014 , 13, 306-338		18
181	Some Joys and Trials of Mathematical Neuroscience. 2014 , 24, 201-242		6
180	Modeling K _{ATP} -dependent excitability in pancreatic islets. <i>Biophysical Journal</i> , 2014 , 107, 2016-26	2.9	10
179	Mathematical models of electrical activity of the pancreatic β cell: a physiological review. 2014 , 6, e949195		35
178	Phase transitions in pancreatic islet cellular networks and implications for type-1 diabetes. 2014 , 89, 012719		12
177	Solvation dynamics and intermittent oscillation of cell membrane: live Chinese hamster ovary cell. 2014 , 118, 2949-56		19
176	On bursting solutions near chaotic regimes in a neuron model. 2014 , 7, 1363-1383		6
175	Dynamics of different compound bursting in two phantom bursting mechanism models. 2014 , 57, 885-892		18
174	Calcium-Induced calcium release during action potential firing in developing inner hair cells. <i>Biophysical Journal</i> , 2015 , 108, 1003-12	2.9	14
173	Thermodynamic order parameters and statistical-mechanical measures for characterization of the burst and spike synchronizations of bursting neurons. 2015 , 438, 544-559		11
172	Time-stepping techniques to enable the simulation of bursting behavior in a physiologically realistic computational islet. 2015 , 263, 1-17		1
171	Explicit series solution for a glucose-induced electrical activity model of pancreatic beta-cells. <i>Chaos, Solitons and Fractals</i> , 2015 , 76, 1-9	9.3	2
170	Electrical, Calcium, and Metabolic Oscillations in Pancreatic Islets. 2015 , 453-474		1
169	Mathematical modeling of gap junction coupling and electrical activity in human β cells. 2015 , 12, 066002		24

168	Mathematical Analysis of Complex Cellular Activity. 2015 ,	2
167	Electrophysiology of Islet Cells. 2015 , 249-303	5
166	. 2016 ,	
165	Neurons and Other Excitable Cells. 2016 , 337-385	2
164	Endoplasmic Reticulum- and Plasma-Membrane-Driven Calcium Oscillations. 2016 , 111-141	
163	A Mathematical Model of Gonadotropin-Releasing Hormone Neurons. 2016 , 142-165	1
162	Numerical analysis of bursting activity in an isolated pancreatic β -cell model. 2016 , 7, 217-225	1
161	Bursting and Synchronization in a Two-Compartment Model with Current-Feedback Control. 2016 , 26, 1650218	4
160	Effect of network architecture on burst and spike synchronization in a scale-free network of bursting neurons. 2016 , 79, 53-77	12
159	Symmetric Fold/Super-Hopf Bursting, Chaos and Mixed-Mode Oscillations in Pernarowski Model of Pancreatic Beta-Cells. 2016 , 26, 1630022	22
158	Diversity of coupled oscillators can enhance their synchronization. 2016 , 94, 042213	3
157	Stability and Hopf Bifurcation Analysis in HindmarshRose Neuron Model with Multiple Time Delays. 2016 , 26, 1650187	10
156	The Calcium Toolbox. 2016 , 29-96	1
155	Bifurcation and Spike Adding Transition in ChayKeizer Model. 2016 , 26, 1650090	15
154	Effect of self-assemblies on the dynamics of phloroglucinol-based Belousov-Zhabotinsky reaction: analytical approach. 2016 , 294, 421-431	4
153	Effects of quasi-steady-state reduction on biophysical models with oscillations. 2016 , 393, 16-31	10
152	Bifurcation study of neuron firing activity of the modified HindmarshRose model. 2016 , 27, 739-747	27
151	Fractal Behavior of the Pancreatic β Cell Near the Percolation Threshold: Effect of the KATP Channel On the Electrical Response. 2016 , 13, 112-21	1

150	Alternative Models to Hodgkin-Huxley Equations. 2017 , 79, 1390-1411		6
149	Fractional dynamical behavior of electrical activity in a model of pancreatic β cells. <i>Chaos, Solitons and Fractals</i> , 2017 , 102, 426-432	9-3	12
148	Decoding the regulatory mechanism of glucose and insulin induced phosphatidylinositol 3,4,5-trisphosphate dynamics in β cells. 2017 , 13, 1512-1523		
147	Synchronization Dynamics of Two Heterogeneous Chaotic Rulkov Neurons with Electrical Synapses. 2017 , 27, 1730009		6
146	Interaction between pancreatic β cell and electromagnetic fields: A systematic study toward finding the natural frequency spectrum of β cell system. 2017 , 36, 341-356		3
145	Spatiotemporal dynamics in excitable homogeneous random networks composed of periodically self-sustained oscillation. 2017 , 7, 11885		17
144	Coexistence between silent and bursting states in a biophysical Hodgkin-Huxley-type of model. <i>Chaos</i> , 2017 , 27, 123101	3-3	9
143	Multi-timescale systems and fast-slow analysis. 2017 , 287, 105-121		69
142	Complicated dynamics of a ring of nonidentical FitzHugh-Nagumo neurons with delayed couplings. 2017 , 87, 2395-2406		12
141	Mixed-Mode Oscillations and Twin Canard Orbits in an Autocatalytic Chemical Reaction. 2017 , 16, 2165-2195		12
140	Bursting through interconnection of excitable circuits. 2017 ,		2
139	Upregulation of an inward rectifying K ⁺ channel can rescue slow Ca ²⁺ oscillations in K(ATP) channel deficient pancreatic islets. 2017 , 13, e1005686		9
138	Closing in on the Mechanisms of Pulsatile Insulin Secretion. 2018 , 67, 351-359		37
137	Bioelectrical control of positional information in development and regeneration: A review of conceptual and computational advances. 2018 , 137, 52-68		28
136	Effect of spike-timing-dependent plasticity on stochastic burst synchronization in a scale-free neuronal network. 2018 , 12, 315-342		27
135	Investigation of the role of ion channels in human pancreatic β cell hubs: A mathematical modeling study. 2018 , 97, 50-62		3
134	On the different bursting patterns of the Pernarowski's fractional order model. 2018 ,		
133	Transitions between bursting modes in the integrated oscillator model for pancreatic β cells. 2018 , 454, 310-319		9

132	Robust and tunable bursting requires slow positive feedback. 2018 , 119, 1222-1234		18
131	Saddle Slow Manifolds and Canard Orbits in [Formula: see text] and Application to the Full Hodgkin-Huxley Model. 2018 , 8, 5		10
130	Gap-junction coupling can prolong beta-cell burst period by an order of magnitude via phantom bursting. <i>Chaos</i> , 2018 , 28, 063111	3.3	8
129	Integrated multiscale mathematical modeling of insulin secretion reveals the role of islet network integrity for proper oscillatory glucose-dose response. 2019 , 475, 1-24		8
128	Preface. 2019 , xi-xii		
127	Introduction. 2019 , 1-12		
126	Compartmental Modeling. 2019 , 15-41		
125	Phase Diagrams. 2019 , 42-58		
124	Ligands, Receptors and Rate Laws. 2019 , 59-80		
123	Function Families and Characteristic Times. 2019 , 81-97		
122	Bifurcation Diagrams of Scalar ODEs. 2019 , 98-112		
121	The Nernst Equilibrium Potential. 2019 , 115-131		
120	The Current Balance Equation. 2019 , 132-153		
119	GHK Theory of Membrane Permeation. 2019 , 154-168		
118	Voltage-Gated Ionic Currents. 2019 , 171-184		
117	Regenerative Ionic Currents and Bistability. 2019 , 185-198		
116	Voltage-Clamp Recording. 2019 , 199-215		
115	Hodgkin-Huxley Model of the Action Potential. 2019 , 216-232		

114 The Morris-Lecar Model. **2019**, 235-251

113 Phase Plane Analysis. **2019**, 252-274

112 Linear Stability Analysis. **2019**, 275-294

111 Type II Excitability and Oscillations (Hopf Bifurcation). **2019**, 297-318

110 Type I Excitability and Oscillations (SNIC and SHO Bifurcations). **2019**, 319-337

109 The Low-Threshold Calcium Spike. **2019**, 338-352

108 Synaptic Currents. **2019**, 353-367

107 Afterword. **2019**, 368-370

106 Index. **2019**, 380-382

105 Stopping waves: geometric analysis of coupled bursters in an asymmetric excitation field. **2019**, 96, 1927-1937 3

104 Mathematical Modelling of Endocrine Systems. **2019**, 30, 244-257 32

103 Bursting Memristor Neuron Response to Capacitance Variation. **2019**, 1 1

102 Burst synchronization in a scale-free neuronal network with inhibitory spike-timing-dependent plasticity. **2019**, 13, 53-73 18

101 Cluster burst synchronization in a scale-free network of inhibitory bursting neurons. **2020**, 14, 69-94 9

100 Pseudo-plateau bursting and mixed-mode oscillations in a model of developing inner hair cells. **2020**, 80, 104979 11

99 Global dynamics of nonautonomous HindmarshRose equations. **2020**, 53, 103078

98 Spike-adding structure in fold/hom bursters. **2020**, 83, 105100 11

97 Collective sustained oscillations in excitable small-world networks: the moderate fundamental loop or the minimum Winfree loop?. **2020**, 99, 1415-1431 1

96	Phantom bursting may underlie electrical bursting in single pancreatic β cells. 2020 , 501, 110346	3
95	Mathematical Modeling for the Physiological and Clinical Investigation of Glucose Homeostasis and Diabetes. 2020 , 11, 575789	4
94	β Cells Operate Collectively to Help Maintain Glucose Homeostasis. <i>Biophysical Journal</i> , 2020 , 118, 2588-2595	10
93	Computational model of insulin-glucose regulatory system to represent type 1 diabetes mellitus, hypoglycemia and hyperinsulinemia. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 943-952	2-3
92	Spike-Adding Canard Explosion in a Class of Square-Wave Bursters. 2020 , 30, 2613-2669	4
91	Development and transition of target waves in the network of Hindmarsh-Rose neurons under electromagnetic radiation. 2020 , 34, 2050137	3
90	Synchronization of boundary coupled Hindmarsh-Rose neuron network. 2020 , 55, 103139	5
89	Ion channel noise shapes the electrical activity of endocrine cells. 2020 , 16, e1007769	4
88	Synchronization patterns on networks of pancreatic β cell models. 2021 , 416, 132783	3
87	Random Attractor for Stochastic Hindmarsh-Rose Equations with Additive Noise. 2021 , 33, 489-510	4
86	Analysis on the mechanism of enhancing insulin secretion by TRPM2 channel in a pancreatic β cell. 2021 , 12, 500-511	
85	Robust spike timing in an excitable cell with delayed feedback. 2021 , 18, 20210029	2
84	Intercellular Communication in the Islet of Langerhans in Health and Disease. 2021 , 11, 2191-2225	3
83	Neural Network Differential Equations For Ion Channel Modelling. 2021 , 12, 708944	1
82	Neuron dynamics and synchronous transition of symmetrical electrically coupled Sherman. 2150261	
81	Safety factor for electrostimulation with nanosecond pulses. 2021 , 141, 107882	0
80	Channels, Coupling, and Synchronized Rhythmic Bursting Activity. 1992 , 29-46	6
79	The β Cell Bursting Pattern and Intracellular Calcium. 1986 , 353-362	5

78	Prediction of the glucose-induced changes in membrane ionic permeability and cytosolic Ca ²⁺ by mathematical modeling. 1986 , 211, 247-63	10
77	Modelling the beta-cell electrical activity. 1986 , 211, 265-78	7
76	Electrophysiological measurements show marked differences in the properties of the pancreatic beta-cell K-channels from albino mice and a strain of ob/ob (obese) mice. 1986 , 211, 95-107	3
75	Computer modeling of heterogeneous beta-cell populations. 1997 , 426, 275-84	2
74	Interactions Between Enzyme Catalysis and Non Stationary Electric Fields. 1987 , 203-215	4
73	Oscillations. 2015 , 397-430	2
72	The Sherman-Rinzel-Keizer Model for Bursting Electrical Activity in the Pancreatic ECell. 1991 , 34-53	7
71	Oscillations and Chaos in the Pancreatic ECell. 1986 , 2-18	3
70	On Different Mechanisms for Membrane Potential Bursting. 1986 , 19-33	30
69	Origin of Bursting and Birhythmicity in a Model for Cyclic AMP Oscillations in Dictyostelium Cells. 1987 , 244-255	9
68	A Formal Classification of Bursting Mechanisms in Excitable Systems. 1987 , 267-281	186
67	Electrical bursting, calcium oscillations, and synchronization of pancreatic islets. 2010 , 654, 261-79	47
66	Calcium and the Control of Insulin Secretion. 1986 , 253-326	23
65	Collective properties of insulin-secreting cells. 1989 , 61-75	1
64	Cyclic AMP as a determinant for glucose induction of fast Ca ²⁺ oscillations in isolated pancreatic beta-cells. 1991 , 266, 12207-12210	54
63	Burst Synchronization in A Scale-Free Neuronal Network with Inhibitory Spike-Timing-Dependent Plasticity.	1
62	Pancreatic ECell Electrical Activity and Insulin Secretion: Of Mice and Men. 2018 , 98, 117-214	290
61	Applying the Conley Index to Fast-Slow Systems with One Slow Variable and an Attractor. 2008 , 38,	2

60	Mathematical Modeling of Interacting Glucose-Sensing Mechanisms and Electrical Activity Underlying Glucagon-Like Peptide 1 Secretion. 2015 , 11, e1004600	7
59	Investigating the role of islet cytoarchitecture in its oscillation using a new beta-cell cluster model. 2007 , 2, e983	35
58	Bifurcation analysis of bursting solutions of two Hindmarsh-Rose neurons with joint electrical and synaptic coupling. 2011 , 16, 637-651	3
57	A chaotic bursting-spiking transition in a pancreatic beta-cells system: Observation of an interior glucose-induced crisis. 2017 , 14, 821-842	1
56	Cooperative and acute inhibition by multiple C-terminal motifs of L-type Ca channels. 2017 , 6,	7
55	Cell Cycle Regulation. Bifurcation Theory. 2021 , 41-57	0
54	Beta-Cell Ion Channels and Their Role in Regulating Insulin Secretion. 2021 , 11, 1-21	1
53	The Electric Field-Induced Electroconformational Coupling of Cell Membrane Proteins. 2000 , 147-205	
52	STABILITY ANALYSIS OF BURSTING MODELS. 2005 , 42, 827-845	
51	Application of Collective Synchronization to Sensor Data Processing. 2006 , 126, 185-189	
50	Hodgkin-Huxley-Type Models of Cardiac Muscle Cells. 2010 , 119-141	
49	Study on bursting of pancreatic cells in codimension-2 bifurcation regions. 2011 , 60, 110202	1
48	The Neuron Modeling Methods Based on Neurodynamics. 2012 , 188-195	
47	Electrophysiology of Islet Cells. 2013 , 1-52	
46	Electrical, Calcium, and Metabolic Oscillations in Pancreatic Islets. 2013 , 1-21	
45	Compound bursting in an electrical coupling model with three different time scales. 2013 , 62, 170508	0
44	Encyclopedia of Computational Neuroscience. 2014 , 1-5	
43	Electrophysiology of Islet Cells. 2014 , 1-51	0

- 42 Electrical, Calcium, and Metabolic Oscillations in Pancreatic Islets. **2014**, 1-20
- 41 References. **2014**, 255-277
- 40 Nonstationary Processes: Transients, Limit Cycles, and Chaotic Trajectories. **1987**, 449-494
- 39 On the Electrical Activity and Glucose Response of Insulin-Secreting Cells. **1988**, 685-696
- 38 Electroconformational Coupling and the Effects of Static and Dynamic Electric Fields on Membrane Transport. **1988**, 59-74
- 37 Glucose Dose Response of Pancreatic β Cells: Experimental and Theoretical Results. **1990**, 123-141 2
- 36 A Discontinuous Model for Membrane Activity. **1991**, 155-161
- 35 Reduction of the Onchidium Pacemaker Neuron Model. **1994**, 1, 12-19
- 34 Membrane Models. **1999**, 4
- 33 Geometric Singular Perturbation Analysis of Bursting Oscillations in Pituitary Cells. **2015**, 1-52 1
- 32 Contrastive analysis of neuron model. **2016**, 65, 240701 7
- 31 Electrical Excitability of the Endoplasmic Reticulum Membrane Drives Electrical Bursting and the Pulsatile Secretion of Insulin in a Pancreatic Beta Cell Model.
- 30 Cluster Burst Synchronization in A Scale-Free Network of Inhibitory Bursting Neurons.
- 29 Cellular Biophysics and Modeling. **2019**,
- 28 β cells operate collectively to help maintain glucose homeostasis.
- 27 A Purkinje cell model that simulates complex spikes.
- 26 Pancreatic β and δ cells are globally phase-locked.
- 25 Firing Rhythm of Compartmentalized Neuron Chay Model. **2020**, 09, 204-219

24	EXPONENTIAL ATTRACTOR FOR HINDMARSH-ROSE EQUATIONS IN NEURODYNAMICS. 2020 , 10, 2036-2057		
23	The Single Neuron. 2007 , 217-224		
22	Excitation and Inhibition in Oscillatory Neural Networks. 2020 , 323-334		
21	Synchronization of a cluster of (beta)-cells based on a small-world network and its electronic experimental verification. <i>European Physical Journal: Special Topics</i> , 1	2.3	2
20	Symbiosis of Electrical and Metabolic Oscillations in Pancreatic β Cells.. 2021 , 12, 781581		1
19	Stability and Hopf bifurcation analysis of flux neuron model with double time delays. <i>Journal of Applied Mathematics and Computing</i> , 1	1.8	0
18	Amplitude-modulated spiking as a novel route to bursting: Coupling-induced mixed-mode oscillations by symmetry breaking.. <i>Chaos</i> , 2022 , 32, 013121	3.3	1
17	Dynamical complexity and temporal plasticity in pancreatic beta-cells. <i>Journal of Biosciences</i> , 2000 , 25, 197-209	2.3	8
16	Do oscillations in pancreatic islets require pacemaker cells?. <i>Journal of Biosciences</i> , 2022 , 47, 1	2.3	1
15	Oscillations in K(ATP) Conductance Drive Slow Calcium Oscillations in Pancreatic β Cells.. <i>Biophysical Journal</i> , 2022 ,	2.9	1
14	New topological classification of bursting in multi-time-scale Chay-Rook model. <i>European Physical Journal: Special Topics</i> , 1	2.3	1
13	Frequency synchronization and excitabilities of two coupled heterogeneous Morris-Lecar neurons. <i>Chaos, Solitons and Fractals</i> , 2022 , 157, 111959	9.3	
12	Pulsatile Basal Insulin Secretion is Driven by Glycolytic Oscillations.. <i>Physiology</i> , 2022 ,	9.8	0
11	Model predictions of myoelectrical activity of the small bowel. <i>Biological Cybernetics</i> , 1996 , 74, 167-179	2.8	
10	Mathematical Modeling of the Endocrine System. <i>Bulletin of Science and Practice</i> , 2022 , 8, 132-156	0.2	
9	Endocrine Cell Function and Dysfunction. 2022 , 1308-1311		
8	Pancreatic β and δ cells are globally phase-locked. <i>Nature Communications</i> , 2022 , 13,	17.4	0
7	Machine learning provides insight into models of heterogeneous electrical activity in human beta-cells. 2022 , 108927		1

- 6 ATP hydrolysis kinetics and thermodynamics as determinants of calcium oscillation in pancreatic β cells. **2022**, 4, [103827](#)
- 5 Efficient Digital Realization of Endocrine Pancreatic β -Cells. **2023**, 1-11 [103827](#)
- 4 Global dynamics of diffusive Hindmarsh-Rose equations with memristors. **2023**, 71, 103827 [103827](#)
- 3 The Dynamics of Calcium Signaling in Beta Cells: A Discussion on the Comparison of Experimental and Modelling Data. **2023**, 24, 3206 [103827](#)
- 2 Compromised beta-cell identity in type 2 diabetes. [103827](#)
- 1 Functional improvement in β cell models of type 2 diabetes using on-demand feedback control. **2023**, 13, 045317 [103827](#)