Anita Layton

List of Publications by Year
in descending order

197 papers	4,620 citations	109321 35 h-index	149698 56 g-index
211 all docs	211 docs citations	211 times ranked	2773 citing authors

#	Article	IF	Citations
1	The mixed blessing of AMPK signaling in Cancer treatments. BMC Cancer, 2022, 22, 105.	2.6	32
2	Sex-Specific Computational Models of Kidney Function in Patients With Diabetes. Frontiers in Physiology, 2022, 13, 741121.	2.8	11
3	Adaptive changes in single-nephron GFR, tubular morphology, and transport in a pregnant rat nephron: modeling and analysis. American Journal of Physiology - Renal Physiology, 2022, 322, F121-F137.	2.7	24
4	Understanding the dynamics of SARS-CoV-2 variants of concern in Ontario, Canada: a modeling study. Scientific Reports, 2022, 12, 2114.	3.3	21
5	Determining risk factors for triple whammy acute kidney injury. Mathematical Biosciences, 2022, 347, 108809.	1.9	7
6	Modelling female physiology from head to Toe: Impact of sex hormones, menstrual cycle, and pregnancy. Journal of Theoretical Biology, 2022, 540, 111074.	1.7	13
7	Intrarenal Reninâ€Angiotensin System and its Role in Angiotensin IIâ€Induced Hypertension: Insights from Computational Modelling. FASEB Journal, 2022, 36, .	0.5	0
8	Renal adaptations in gestational hypertension preserves K ⁺ while minimizing Na ⁺ retention. FASEB Journal, 2022, 36, .	0.5	0
9	A predictive model for estimating protection against CKD and CVD with SGLT2 inhibition in patients with diabetes. FASEB Journal, 2022, 36, .	0.5	0
10	The furosemide stress test and computational modeling identify renal damage sites associated with predisposition to acute kidney injury in rats. Translational Research, 2021, 231, 76-91.	5.0	6
11	Computing viscous flow along a 2D open channel using the immersed interface method. Engineering Reports, 2021, 3, e12334.	1.7	0
12	Modeling the circadian regulation of the immune system: Sexually dimorphic effects of shift work. PLoS Computational Biology, 2021, 17, e1008514.	3.2	14
13	Aging affects circadian clock and metabolism and modulates timing of medication. IScience, 2021, 24, 102245.	4.1	18
14	Impact of sex and pathophysiology on optimal drug choice in hypertensive rats: Quantitative insights for precision medicine. IScience, 2021, 24, 102341.	4.1	9
15	Interactions among mTORC, AMPK and SIRT: a computational modelÂfor cell energyÂbalance and metabolism. Cell Communication and Signaling, 2021, 19, 57.	6.5	41
16	A Computational Model of Kidney Function in a Patient with Diabetes. International Journal of Molecular Sciences, 2021, 22, 5819.	4.1	23
17	Modeling within-Host SARS-CoV-2 Infection Dynamics and Potential Treatments. Viruses, 2021, 13, 1141.	3.3	48
18	Sex differences in solute and water handling in the human kidney: Modeling and functional implications. IScience, 2021, 24, 102667.	4.1	35

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19	His and her mathematical models of physiological systems. Mathematical Biosciences, 2021, 338, 108642.	1.9	10
20	Haemodynamic frailty â€“ A risk factor for acute kidney injury in the elderly. Ageing Research Reviews, 2021, 70, 101408.	10.9	12
21	A model of mitochondrial O₂consumption and ATP generation in rat proximal tubule cells. American Journal of Physiology - Renal Physiology, 2020, 318, F248-F259.	2.7	14
22	Use of Angiotensin-Converting Enzyme Inhibitors and Angiotensin II Receptor Blockers During the COVID-19 Pandemic: A Modeling Analysis. PLoS Computational Biology, 2020, 16, e1008235.	3.2	11
23	Sex differences in solute transport along the nephrons: effects of Na⁺transport inhibition. American Journal of Physiology - Renal Physiology, 2020, 319, F487-F505.	2.7	56
24	Pathophysiological mechanisms underlying a rat model of triple whammy acute kidney injury. Laboratory Investigation, 2020, 100, 1455-1464.	3.7	6
25	Sex-specific computational models for blood pressure regulation in the rat. American Journal of Physiology - Renal Physiology, 2020, 318, F888-F900.	2.7	21
26	Title is missing!. , 2020, 16, e1008235.		0
27	Title is missing!. , 2020, 16, e1008235.		0
28	Title is missing!. , 2020, 16, e1008235.		0
29	Title is missing!. , 2020, 16, e1008235.		0
30	Title is missing!. , 2020, 16, e1008235.		0
31	Title is missing!. , 2020, 16, e1008235.		0
32	Optimizing SGLT inhibitor treatment for diabetes with chronic kidney diseases. Biological Cybernetics, 2019, 113, 139-148.	1.3	7
33	Functional implications of the sex differences in transporter abundance along the rat nephron: modeling and analysis. American Journal of Physiology - Renal Physiology, 2019, 317, F1462-F1474.	2.7	56
34	Solute and water transport along an inner medullary collecting duct undergoing peristaltic contractions. American Journal of Physiology - Renal Physiology, 2019, 317, F735-F742.	2.7	2
35	Multiscale models of kidney function and diseases. Current Opinion in Biomedical Engineering, 2019, 11, 1-8.	3.4	3
36	Network centrality analysis of eye-gaze data in autism spectrum disorder. Computers in Biology and Medicine, 2019, 111, 103332.	7.0	24

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37	How Do Kidneys Adapt to a Deficit or Loss in Nephron Number?. Physiology, 2019, 34, 189-197.	3.1	34
38	Understanding sex differences in long-term blood pressure regulation: insights from experimental studies and computational modeling. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1113-H1123.	3.2	26
39	A computational model of epithelial solute and water transport along a human nephron. PLoS Computational Biology, 2019, 15, e1006108.	3.2	41
40	Recent advances in sex differences in kidney function. American Journal of Physiology - Renal Physiology, 2019, 316, F328-F331.	2.7	28
41	Sex-specific long-term blood pressure regulation: Modeling and analysis. Computers in Biology and Medicine, 2019, 104, 139-148.	7.0	46
42	Recent advances in renal epithelial transport. American Journal of Physiology - Renal Physiology, 2019, 316, F274-F276.	2.7	2
43	Sexâ€specific Computational Models for Blood Pressure Regulation in the Rat. FASEB Journal, 2019, 33, 758.6.	0.5	2
44	Determining Risk Factors for Triple Whammy AKI using Computational Models of Longâ€•Term Blood Pressure Regulation. FASEB Journal, 2019, 33, 758.5.	0.5	0
45	Functional Implications of Sexual Dimorphism of Transporter Patterns along the Rat Nephron. FASEB Journal, 2019, 33, 864.1.	0.5	0
46	Impact of shifting epithelial Na + transport on renal medullary oxygen tension: Modeling and analysis. FASEB Journal, 2019, 33, 748.1.	0.5	0
47	Theoretical assessment of the Ca2+ oscillations in the afferent arteriole smooth muscle cell of the rat kidney. International Journal of Biomathematics, 2018, 11, 1850043.	2.9	1
48	Cardiovascular benefits of <scp>SGLT</scp>2 inhibition in diabetes and chronic kidney diseases. Acta Physiologica, 2018, 222, e13050.	3.8	14
49	Modeling sex differences in the renin angiotensin system and the efficacy of antihypertensive therapies. Computers and Chemical Engineering, 2018, 112, 253-264.	3.8	31
50	A Multicellular Vascular Model of the Renal Myogenic Response. Processes, 2018, 6, 89.	2.8	1
51	Renal tubular solute transport and oxygen consumption. Current Opinion in Nephrology and Hypertension, 2018, 27, 384-389.	2.0	3
52	Predicted effect of circadian clock modulation of NHE3 of a proximal tubule cell on sodium transport. American Journal of Physiology - Renal Physiology, 2018, 315, F665-F676.	2.7	28
53	Functional implications of sexual dimorphism of transporter patterns along the rat proximal tubule: modeling and analysis. American Journal of Physiology - Renal Physiology, 2018, 315, F692-F700.	2.7	68
54	Renal potassium handling in rats with subtotal nephrectomy: modeling and analysis. American Journal of Physiology - Renal Physiology, 2018, 314, F643-F657.	2.7	34

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55	SGLT2 inhibition in a kidney with reduced nephron number: modeling and analysis of solute transport and metabolism. American Journal of Physiology - Renal Physiology, 2018, 314, F969-F984.	2.7	100
56	Sweet success? SGLT2 inhibitors and diabetes. American Journal of Physiology - Renal Physiology, 2018, 314, F1034-F1035.	2.7	2
57	His and Her Computational Models of Longâ€term Blood Pressure Regulation. FASEB Journal, 2018, 32, 714.5.	0.5	0
58	Renal medullary and urinary oxygen tension during cardiopulmonary bypass in the rat. Mathematical Medicine and Biology, 2017, 34, dqw010.	1.2	30
59	Intraâ€Target Microdosing (ITM): A Novel Drug Development Approach Aimed at Enabling Safer and Earlier Translation of Biological Insights Into Human Testing. Clinical and Translational Science, 2017, 10, 337-350.	3.1	8
60	A new microscope for the kidney: mathematics. American Journal of Physiology - Renal Physiology, 2017, 312, F671-F672.	2.7	6
61	Modeling glucose metabolism and lactate production in the kidney. Mathematical Biosciences, 2017, 289, 116-129.	1.9	21
62	Sex-specific computational models of the spontaneously hypertensive rat kidneys: factors affecting nitric oxide bioavailability. American Journal of Physiology - Renal Physiology, 2017, 313, F174-F183.	2.7	33
63	Adaptive changes in GFR, tubular morphology, and transport in subtotal nephrectomized kidneys: modeling and analysis. American Journal of Physiology - Renal Physiology, 2017, 313, F199-F209.	2.7	48
64	Generation and phenotypic analysis of mice lacking all urea transporters. Kidney International, 2017, 91, 338-351.	5.2	23
65	Introduction to Mathematical Modeling of Blood Flow Control in the Kidney. Association for Women in Mathematics Series, 2017, , 63-73.	0.4	0
66	Cell Volume Regulation in the Proximal Tubule of Rat Kidney. Bulletin of Mathematical Biology, 2017, 79, 2512-2533.	1.9	8
67	Modeling Blood Flow and Oxygenation in a Diabetic Rat Kidney. Association for Women in Mathematics Series, 2017, , 101-113.	0.4	0
68	Tracking the Distribution of a Solute Bolus in the Rat Kidney. Association for Women in Mathematics Series, 2017, , 115-136.	0.4	0
69	Modeling Glucose Metabolism in the Kidney. Bulletin of Mathematical Biology, 2016, 78, 1318-1336.	1.9	17
70	Recent advances in renal hypoxia: insights from bench experiments and computer simulations. American Journal of Physiology - Renal Physiology, 2016, 311, F162-F165.	2.7	14
71	Fluid extraction across pumping and permeable walls in the viscous limit. Physics of Fluids, 2016, 28, 041902.	4.0	4
72	Solute transport and oxygen consumption along the nephrons: effects of Na⁺transport inhibitors. American Journal of Physiology - Renal Physiology, 2016, 311, F1217-F1229.	2.7	72

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73	Bladder urine oxygen tension for assessing renal medullary oxygenation in rabbits: experimental and modeling studies. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2016, 311, R532-R544.	1.8	33
74	Transfer Function Analysis of Dynamic Blood Flow Control in the Rat Kidney. Bulletin of Mathematical Biology, 2016, 78, 923-960.	1.9	2
75	Electrohydrodynamics of a viscous drop with inertia. Physical Review E, 2016, 93, 053114.	2.1	23
76	A computational model for simulating solute transport and oxygen consumption along the nephrons. American Journal of Physiology - Renal Physiology, 2016, 311, F1378-F1390.	2.7	74
77	Predicted consequences of diabetes and SGLT inhibition on transport and oxygen consumption along a rat nephron. American Journal of Physiology - Renal Physiology, 2016, 310, F1269-F1283.	2.7	118
78	Modeling the effects of positive and negative feedback in kidney blood flow control. Mathematical Biosciences, 2016, 276, 8-18.	1.9	6
79	Impact of nitric-oxide-mediated vasodilation and oxidative stress on renal medullary oxygenation: a modeling study. American Journal of Physiology - Renal Physiology, 2016, 310, F237-F247.	2.7	30
80	Dynamic contrast-enhanced quantitative susceptibility mapping with ultrashort echo time MRI for evaluating renal function. American Journal of Physiology - Renal Physiology, 2016, 310, F174-F182.	2.7	20
81	Conduction of feedback-mediated signal in a computational model of coupled nephrons. Mathematical Medicine and Biology, 2016, 33, 87-106.	1.2	4
82	Internephron Coupling Increases the Efficiency of Dynamic Autoregulation. FASEB Journal, 2016, 30, 739.6.	0.5	0
83	An Immersed Interface Method for Axisymmetric Electrohydrodynamic Simulations in Stokes flow. Communications in Computational Physics, 2015, 18, 429-449.	1.7	10
84	Predicted effects of nitric oxide and superoxide on the vasoactivity of the afferent arteriole. American Journal of Physiology - Renal Physiology, 2015, 309, F708-F719.	2.7	6
85	Mathematical modeling of renal hemodynamics in physiology and pathophysiology. Mathematical Biosciences, 2015, 264, 8-20.	1.9	24
86	Renal hemodynamics, function, and oxygenation during cardiac surgery performed on cardiopulmonary bypass: a modeling study. Physiological Reports, 2015, 3, e12260.	1.7	40
87	Modeling oxygen consumption in the proximal tubule: effects of NHE and SGLT2 inhibition. American Journal of Physiology - Renal Physiology, 2015, 308, F1343-F1357.	2.7	110
88	Impacts of nitric oxide and superoxide on renal medullary oxygen transport and urine concentration. American Journal of Physiology - Renal Physiology, 2015, 308, F967-F980.	2.7	34
89	Recent advances in renal hemodynamics: insights from bench experiments and computer simulations. American Journal of Physiology - Renal Physiology, 2015, 308, F951-F955.	2.7	9
90	Bifurcation study of blood flow control in the kidney. Mathematical Biosciences, 2015, 263, 169-179.	1.9	10

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91	An Exact Solution for Stokes Flow in a Channel with Arbitrarily Large Wall Permeability. SIAM Journal on Applied Mathematics, 2015, 75, 2246-2267.	1.8	5
92	Modeling Blood Flow Control in the Kidney. The IMA Volumes in Mathematics and Its Applications, 2015, , 55-73.	0.5	1
93	Intraarterial Microdosing: A Novel Drug Development Approach, Proof-of-Concept PET Study in Rats. Journal of Nuclear Medicine, 2015, 56, 1793-1799.	5.0	10
94	Nitric Oxide and Superoxide Significantly Affect Medullary Oxygenation and Urinary Output. FASEB Journal, 2015, 29, 963.1.	0.5	0
95	Urinary PO2 as a biomarker for medullary hypoxia. FASEB Journal, 2015, 29, 963.6.	0.5	0
96	Implications of Increased Renal Venous Pressure for Renal Hemodynamic and Reabsorptive Function Studied by a Mathematical Model of the Kidney. FASEB Journal, 2015, 29, 808.19.	0.5	0
97	SGLT2 Inhibition Is Predicted to Increase NaCl Delivery to the Medullary Thick Ascending Limb But Not to Significantly Elevate Its Oxygen Consumption. FASEB Journal, 2015, 29, 959.3.	0.5	0
98	Dominant factors that govern pressure natriuresis in diuresis and antidiuresis: a mathematical model. American Journal of Physiology - Renal Physiology, 2014, 306, F952-F969.	2.7	21
99	Effects of NKCC2 isoform regulation on NaCl transport in thick ascending limb and macula densa: a modeling study. American Journal of Physiology - Renal Physiology, 2014, 307, F137-F146.	2.7	42
100	Targeted delivery of solutes and oxygen in the renal medulla: role of microvessel architecture. American Journal of Physiology - Renal Physiology, 2014, 307, F649-F655.	2.7	34
101	Impact of renal medullary three-dimensional architecture on oxygen transport. American Journal of Physiology - Renal Physiology, 2014, 307, F263-F272.	2.7	61
102	Urine-Concentrating Mechanism in the Inner Medulla. Clinical Journal of the American Society of Nephrology: CJASN, 2014, 9, 1781-1789.	4.5	75
103	Tubular fluid flow and distal NaCl delivery mediated by tubuloglomerular feedback in the rat kidney. Journal of Mathematical Biology, 2014, 68, 1023-1049.	1.9	9
104	Calcium dynamics underlying the myogenic response of the renal afferent arteriole. American Journal of Physiology - Renal Physiology, 2014, 306, F34-F48.	2.7	22
105	Oxygen transport in a cross section of the rat inner medulla: Impact of heterogeneous distribution of nephrons and vessels. Mathematical Biosciences, 2014, 258, 68-76.	1.9	5
106	Theoretical assessment of renal autoregulatory mechanisms. American Journal of Physiology - Renal Physiology, 2014, 306, F1357-F1371.	2.7	40
107	Mathematical Modeling in Renal Physiology. Lecture Notes on Mathematical Modelling in the Life Sciences, 2014, , .	0.4	19
108	Tubuloglomerular Feedback. Lecture Notes on Mathematical Modelling in the Life Sciences, 2014, , 85-106.	0.4	0

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109	Mathematical Modeling of Urea Transport in the Kidney. Sub-Cellular Biochemistry, 2014, 73, 31-43.	2.4	1
110	A regularization method for the numerical solution of periodic Stokes flow. Journal of Computational Physics, 2013, 236, 187-202.	3.8	21
111	Control and Modulation of Fluid Flow in the Rat Kidney. Bulletin of Mathematical Biology, 2013, 75, 2551-2574.	1.9	18
112	Fluid dilution and efficiency of Na⁺transport in a mathematical model of a thick ascending limb cell. American Journal of Physiology - Renal Physiology, 2013, 304, F634-F652.	2.7	6
113	Impacts of active urea secretion into pars recta on urine concentration and urea excretion rate. Physiological Reports, 2013, 1, .	1.7	10
114	Effect of tubular inhomogeneities on feedback-mediated dynamics of a model of a thick ascending limb. Mathematical Medicine and Biology, 2013, 30, 191-212.	1.2	15
115	Mathematical modeling of kidney transport. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2013, 5, 557-573.	6.6	11
116	Transport efficiency and workload distribution in a mathematical model of the thick ascending limb. American Journal of Physiology - Renal Physiology, 2013, 304, F653-F664.	2.7	18
117	Nephrovascular interactions in a mathematical model of rat renal autoregulation. FASEB Journal, 2013, 27, 1110.5.	0.5	0
118	Modeling the effects of medullary blood flow regulation on pressure natriuresis. FASEB Journal, 2013, 27, 1111.2.	0.5	0
119	Autoregulation and conduction of vasomotor responses in a mathematical model of the rat afferent arteriole. American Journal of Physiology - Renal Physiology, 2012, 303, F229-F239.	2.7	44
120	Numerical Methods for Fluid-Structure Interaction â€” A Review. Communications in Computational Physics, 2012, 12, 337-377.	1.7	472
121	Signal transduction in a compliant thick ascending limb. American Journal of Physiology - Renal Physiology, 2012, 302, F1188-F1202.	2.7	8
122	Impact of nitric oxide-mediated vasodilation on outer medullary NaCl transport and oxygenation. American Journal of Physiology - Renal Physiology, 2012, 303, F907-F917.	2.7	8
123	Isolated interstitial nodal spaces may facilitate preferential solute and fluid mixing in the rat renal inner medulla. American Journal of Physiology - Renal Physiology, 2012, 302, F830-F839.	2.7	15
124	Urine concentrating mechanism: impact of vascular and tubular architecture and a proposed descending limb urea-Na⁺cotransporter. American Journal of Physiology - Renal Physiology, 2012, 302, F591-F605.	2.7	43
125	Accurate computation of Stokes flow driven by an open immersed interface. Journal of Computational Physics, 2012, 231, 5195-5215.	3.8	1
126	Signal transduction in a compliant short loop of Henle. International Journal for Numerical Methods in Biomedical Engineering, 2012, 28, 369-383.	2.1	10

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127	Interface methods for biological and biomedical problems. International Journal for Numerical Methods in Biomedical Engineering, 2012, 28, 289-290.	2.1	1
128	Modeling Transport and Flow Regulatory Mechanisms of the Kidney. , 2012, 2012, 1-18.		17
129	Interactions between Tubuloglomerular Feedback and the Myogenic Mechanism of the Afferent Arteriole. FASEB Journal, 2012, 26, 690.2.	0.5	0
130	Role of interstitial nodal spaces in the urine concentrating mechanism of the rat kidney. FASEB Journal, 2012, 26, 1100.8.	0.5	0
131	Tubular Fluid Oscillations Mediated by Tubuloglomerular Feedback in a Short Loop of Henle. FASEB Journal, 2012, 26, 690.1.	0.5	1
132	Urine Concentrating Mechanism: Impact of Vascular and Tubular Architecture and a Proposed Descending Limb Ureaâ€Na Cotransporter. FASEB Journal, 2012, 26, 1100.11.	0.5	0
133	Impact of nitric oxideâ€mediated vasodilation on outer medullary NaCl transport and oxygenation. FASEB Journal, 2012, 26, 1100.6.	0.5	1
134	A mathematical model of the urine concentrating mechanism in the rat renal medulla. II. Functional implications of three-dimensional architecture. American Journal of Physiology - Renal Physiology, 2011, 300, F372-F384.	2.7	41
135	Feedback-mediated dynamics in a model of coupled nephrons with compliant thick ascending limbs. Mathematical Biosciences, 2011, 230, 115-127.	1.9	8
136	Modulation of outer medullary NaCl transport and oxygenation by nitric oxide and superoxide. American Journal of Physiology - Renal Physiology, 2011, 301, F979-F996.	2.7	15
137	Urine concentrating mechanism in the inner medulla of the mammalian kidney: role of threeâ€dimensional architecture. Acta Physiologica, 2011, 202, 361-378.	3.8	34
138	Modeling Vesicle Traffic Reveals Unexpected Consequences for Cdc42p-Mediated Polarity Establishment. Current Biology, 2011, 21, 184-194.	3.9	111
139	Modeling a semiâ€flexible filament in cellular Stokes flow using regularized Stokeslets. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 2021-2034.	2.1	14
140	A mathematical model of the urine concentrating mechanism in the rat renal medulla. I. Formulation and base-case results. American Journal of Physiology - Renal Physiology, 2011, 300, F356-F371.	2.7	51
141	A mathematical model of the myogenic response to systolic pressure in the afferent arteriole. American Journal of Physiology - Renal Physiology, 2011, 300, F669-F681.	2.7	45
142	Countercurrent multiplication may not explain the axial osmolality gradient in the outer medulla of the rat kidney. American Journal of Physiology - Renal Physiology, 2011, 301, F1047-F1056.	2.7	21
143	Role of thin descending limb urea transport in renal urea handling and the urine concentrating mechanism. American Journal of Physiology - Renal Physiology, 2011, 301, F1251-F1259.	2.7	44
144	Efficiency of sodium transport in a model of the Thick Ascending Limb (TAL). FASEB Journal, 2011, 25, .	0.5	0

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145	Dynamical Properties of the Thick Ascending Limb (TAL): A Modeling Study. FASEB Journal, 2011, 25, 665.8.	0.5	0
146	Role of UTB Urea Transporters in the Urine Concentrating Mechanism of the Rat Kidney. FASEB Journal, 2011, 25, 840.1.	0.5	0
147	New numerical methods for Burgers' equation based on semi-Lagrangian and modified equation approaches. Applied Numerical Mathematics, 2010, 60, 645-657.	2.1	5
148	Tubuloglomerular Feedback Signal Transduction inÂaÂShortÂLoop of Henle. Bulletin of Mathematical Biology, 2010, 72, 34-62.	1.9	4
149	Maximum Urine Concentrating Capability inÂaÂMathematical Model of the Inner Medulla ofÂtheÂRatÂKidney. Bulletin of Mathematical Biology, 2010, 72, 314-339.	1.9	7
150	Expanding the scope of quantitative FRAP analysis. Journal of Theoretical Biology, 2010, 262, 295-305.	1.7	9
151	Hyperfiltration and inner stripe hypertrophy may explain findings by Gamble and coworkers. American Journal of Physiology - Renal Physiology, 2010, 298, F962-F972.	2.7	7
152	Effects of pH and medullary blood flow on oxygen transport and sodium reabsorption in the rat outer medulla. American Journal of Physiology - Renal Physiology, 2010, 298, F1369-F1383.	2.7	44
153	Nitric oxide and superoxide transport in a cross section of the rat outer medulla. I. Effects of low medullary oxygen tension. American Journal of Physiology - Renal Physiology, 2010, 299, F616-F633.	2.7	15
154	Functional implications of the three-dimensional architecture of the rat renal inner medulla. American Journal of Physiology - Renal Physiology, 2010, 298, F973-F987.	2.7	43
155	Nitric oxide and superoxide transport in a cross section of the rat outer medulla. II. Reciprocal interactions and tubulovascular cross talk. American Journal of Physiology - Renal Physiology, 2010, 299, F634-F647.	2.7	13
156	An optimization study of a mathematical model of the urine concentrating mechanism of the rat kidney. Mathematical Biosciences, 2010, 223, 66-78.	1.9	0
157	Feedback-mediated dynamics in a model of a compliant thick ascending limb. Mathematical Biosciences, 2010, 228, 185-194.	1.9	33
158	A mathematical model of the afferent arteriolar smooth muscle cell. FASEB Journal, 2010, 24, 1059.27.	0.5	0
159	The Mammalian Urine Concentrating Mechanism: Hypotheses and Uncertainties. Physiology, 2009, 24, 250-256.	3.1	44
160	A mathematical model of O₂transport in the rat outer medulla. I. Model formulation and baseline results. American Journal of Physiology - Renal Physiology, 2009, 297, F517-F536.	2.7	55
161	A mathematical model of O₂ transport in the rat outer medulla. II. Impact of outer medullary architecture. American Journal of Physiology - Renal Physiology, 2009, 297, F537-F548.	2.7	42
162	A velocity decomposition approach for moving interfaces in viscous fluids. Journal of Computational Physics, 2009, 228, 3358-3367.	3.8	10

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163	Multistable Dynamics Mediated by Tubuloglomerular Feedback in a Model of Coupled Nephrons. Bulletin of Mathematical Biology, 2009, 71, 515-555.	1.9	34
164	Using integral equations and the immersed interface method to solve immersed boundary problems with stiff forces. Computers and Fluids, 2009, 38, 266-272.	2.5	27
165	On the efficiency of spectral deferred correction methods for time-dependent partial differential equations. Applied Numerical Mathematics, 2009, 59, 1629-1643.	2.1	8
166	Waveform distortion in TGFâ€mediated limitâ€cycle oscillations: Effects of TAL flow. FASEB Journal, 2009, 23, .	0.5	2
167	On the choice of correctors for semi-implicit Picard deferred correction methods. Applied Numerical Mathematics, 2008, 58, 845-858.	2.1	23
168	An efficient numerical method for the two-fluid Stokes equations with a moving immersed boundary. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2147-2155.	6.6	14
169	Role of three-dimensional architecture in the urine concentrating mechanism of the rat renal inner medulla. American Journal of Physiology - Renal Physiology, 2008, 295, F1271-F1285.	2.7	67
170	Tubuloglomerular feedback signal transduction in a model of a compliant thick ascending limb. FASEB Journal, 2008, 22, 761.3.	0.5	2
171	Role of UTB Urea Transporters in the Urine Concentrating Mechanism of the Rat Kidney. Bulletin of Mathematical Biology, 2007, 69, 887-929.	1.9	13
172	Implications of the choice of predictors for semi-implicit Picard integral deferred correction methods. Communications in Applied Mathematics and Computational Science, 2007, 2, 1-34.	1.8	27
173	Maximum Urine Concentrating Capability for Transport Parameters and Urine Flow within Prescribed Ranges. FASEB Journal, 2007, 21, A905.	0.5	0
174	Modeling Water Transport across Elastic Boundaries Using an Explicit Jump Method. SIAM Journal of Scientific Computing, 2006, 28, 2189-2207.	2.8	29
175	On the accuracy of finite difference methods for elliptic problems with interfaces. Communications in Applied Mathematics and Computational Science, 2006, 1, 91-119.	1.8	83
176	Quadratic spline methods for the shallow water equations on the sphere: Galerkin. Mathematics and Computers in Simulation, 2006, 71, 175-186.	4.4	2
177	Quadratic spline methods for the shallow water equations on the sphere: Collocation. Mathematics and Computers in Simulation, 2006, 71, 187-205.	4.4	3
178	An Optimization Algorithm for a Distributed-Loop Model of an Avian Urine Concentrating Mechanism. Bulletin of Mathematical Biology, 2006, 68, 1625-1660.	1.9	7
179	Multistability in tubuloglomerular feedback and spectral complexity in spontaneously hypertensive rats. American Journal of Physiology - Renal Physiology, 2006, 291, F79-F97.	2.7	40
180	Dynamics in coupled nephrons may contribute to irregular flow oscillations in spontaneously hypertensive rats. FASEB Journal, 2006, 20, A759.	0.5	0

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