Michael W Klymkowsky

List of Publications by Year
in descending order

96 papers	5,602 citations	76326 40 h-index	79698 73 g-index
163 all docs	163 docs citations	163 times ranked	4844 citing authors

#	Article	IF	Citations
1	Making mechanistic sense: are we teaching students what they need to know?. Developmental Biology, 2021, 476, 308-313.	2.0	2
2	Comment on â€œShould Organic Chemistry Be Taught as Science?â€• Journal of Chemical Education, 2020, 97, 1213-1214.	2.3	3
3	Concept Inventories: Design, Application, Uses, Limitations, and Next Steps. , 2020, , 775-790.		4
4	Organic Chemistry, Life, the Universe and Everything (OCLUE): A Transformed Organic Chemistry Curriculum. Journal of Chemical Education, 2019, 96, 1858-1872.	2.3	76
5	Filaments and phenotypes: cellular roles and orphan effects associated with mutations in cytoplasmic intermediate filament proteins. F1000Research, 2019, 8, 1703.	1.6	7
6	Whole-Mount Immunocytochemistry in <i>Xenopus</i>. Cold Spring Harbor Protocols, 2018, 2018, pdb.prot097295.	0.3	7
7	Nuclear roles for cilia-associated proteins. Cilia, 2017, 6, 8.	1.8	19
8	TSPAN12 Is a Norrin Co-receptor that Amplifies Frizzled4 Ligand Selectivity and Signaling. Cell Reports, 2017, 19, 2809-2822.	6.4	61
9	Diagnostic of students' misconceptions using the Biological Concepts Instrument (BCI): A method for conducting an educational needs assessment. PLoS ONE, 2017, 12, e0176906.	2.5	33
10	The Design and Transformation of Biofundamentals: A Nonsurvey Introductory Evolutionary and Molecular Biology Course. CBE Life Sciences Education, 2016, 15, ar70.	2.3	7
11	Identifying domains of EFHC1 involved in ciliary localization, ciliogenesis, and the regulation of Wnt signaling. Developmental Biology, 2016, 411, 257-265.	2.0	16
12	Centrin-2 (Cetn2) mediated regulation of FGF/FGFR gene expression in Xenopus. Scientific Reports, 2015, 5, 10283.	3.3	14
13	CRISPR/Cas9-mediated mutagenesis in the sea lamprey, <i>Petromyzon marinus</i>: a powerful tool for understanding ancestral gene functions in vertebrates. Development (Cambridge), 2015, 142, 4180-7.	2.5	61
14	Are Noncovalent Interactions an Achilles Heel in Chemistry Education? A Comparison of Instructional Approaches. Journal of Chemical Education, 2015, 92, 1979-1987.	2.3	60
15	Classroom Uses for BeSocratic. Human-computer Interaction Series, 2015, , 127-136.	0.6	8
16	A Short History of the Use of Technology To Model and Analyze Student Data for Teaching and Research. ACS Symposium Series, 2014, , 219-239.	0.5	25
17	Energy in Chemical Systems: An Integrated Approach. , 2014, , 301-316.		8
18	NEXUS/Physics: An interdisciplinary repurposing of physics for biologists. American Journal of Physics, 2014, 82, 368-377.	0.7	71

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19	Chibby functions in Xenopus ciliary assembly, embryonic development, and the regulation of gene expression. Developmental Biology, 2014, 395, 287-298.	2.0	22
20	Chemistry, Life, the Universe, and Everything: A New Approach to General Chemistry, and a Model for Curriculum Reform. Journal of Chemical Education, 2013, 90, 1116-1122.	2.3	159
21	Making educational games that work in the classroom: A new approach for integrating STEM simulations. , 2013, , .		6
22	The Trouble with Chemical Energy: Why Understanding Bond Energies Requires an Interdisciplinary Systems Approach. CBE Life Sciences Education, 2013, 12, 306-312.	2.3	66
23	Teaching data structures with beSocratic. , 2013, , .		7
24	Teaching data structures with BeSocratic (abstract only). , 2013, , .		0
25	Analyzing and visualizing student work with <i>BeSocratic</i>. , 2012, , .		4
26	<i>sizzled</i> function and secreted factor network dynamics. Biology Open, 2012, 1, 286-294.	1.2	0
27	Turning randomness into meaning at the molecular level using Muller's morphs. Biology Open, 2012, 1, 405-410.	1.2	7
28	Development and Assessment of a Molecular Structure and Properties Learning Progression. Journal of Chemical Education, 2012, 89, 1351-1357.	2.3	107
29	Using graphâ€based assessments within socratic tutorials to reveal and refine students' analytical thinking about molecular networks. Biochemistry and Molecular Biology Education, 2012, 40, 100-107.	1.2	10
30	Now for the hard part: The path to coherent curricular design. Biochemistry and Molecular Biology Education, 2012, 40, 271-272.	1.2	8
31	A maternally established <i><scp>S</scp>ox<scp>B</scp>1/<scp>S</scp>ox<scp>F</scp></i> axis is a conserved feature of chordate germ layer patterning. Evolution & Development, 2012, 14, 104-115.	2.0	14
32	Mitochondrial activity, embryogenesis, and the dialogue between the big and little brains of the cell. Mitochondrion, 2011, 11, 814-819.	3.4	7
33	Snail2 controls mesodermal BMP/Wnt induction of neural crest. Development (Cambridge), 2011, 138, 3135-3145.	2.5	40
34	Mechanisms driving neural crest induction and migration in the zebrafish and<i>Xenopus laevis</i>. Cell Adhesion and Migration, 2010, 4, 595-608.	2.7	34
35	Lost in Lewis Structures: An Investigation of Student Difficulties in Developing Representational Competence. Journal of Chemical Education, 2010, 87, 869-874.	2.3	149
36	Regulation of TCF3 by Wnt-Dependent Phosphorylation during Vertebrate Axis Specification. Developmental Cell, 2010, 19, 521-532.	7.0	147

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37	A guide to the productive poking, prodding and injection of cells. Development (Cambridge), 2009, 136, 4070-4072.	2.5	0
38	Make Room for Computing. Science, 2009, 326, 227-227.	12.6	6
39	Unexpected functional redundancy between Twist and Slug (Snail2) and their feedback regulation of NF-ÎºB via Nodal and Cerberus. Developmental Biology, 2009, 331, 340-349.	2.0	40
40	Epithelial-Mesenchymal Transition. American Journal of Pathology, 2009, 174, 1588-1593.	3.8	461
41	Foundational Physiochemical Concepts in the Biological Sciences. FASEB Journal, 2009, 23, 464.3.	0.5	0
42	Understanding Randomness and its Impact on Student Learning: Lessons Learned from Building the Biology Concept Inventory (BCI). CBE Life Sciences Education, 2008, 7, 227-233.	2.3	159
43	Rohon-Beard sensory neurons are induced by BMP4 expressing non-neural ectoderm in Xenopus laevis. Developmental Biology, 2008, 314, 351-361.	2.0	24
44	Eya1 and Six1 promote neurogenesis in the cranial placodes in a SoxB1-dependent fashion. Developmental Biology, 2008, 320, 199-214.	2.0	100
45	Recognizing Student Misconceptions through Ed's Tools and the Biology Concept Inventory. PLoS Biology, 2008, 6, e3.	5.6	76
46	Avoiding Reflex Responses: Strategies for Revealing Studentsâ€™ Conceptual Understanding in Biology. AIP Conference Proceedings, 2007, , .	0.4	0
47	Building, Using, and Maximizing the Impact of Concept Inventories in the Biological Sciences: Report on a National Science Foundationâ€"sponsored Conference on the Construction of Concept Inventories in the Biological Sciences. CBE Life Sciences Education, 2007, 6, 277-282.	2.3	64
48	The Sox axis, Nodal signaling, and germ layer specification. Differentiation, 2007, 75, 536-545.	1.9	34
49	An NF-ÎºB and Slug Regulatory Loop Active in Early Vertebrate Mesoderm. PLoS ONE, 2006, 1, e106.	2.5	47
50	Sox3 expression identifies neural progenitors in persistent neonatal and adult mouse forebrain germinative zones. Journal of Comparative Neurology, 2006, 497, 88-100.	1.6	98
51	Xenopus as a Model Organism for Functional Genomics: Rich History, Promising Future. , 2006, , 2019-2025.		0
52	SOX7 and SOX18 are essential for cardiogenesis inXenopus. Developmental Dynamics, 2005, 234, 878-891.	1.8	78
53	Points of View: Content versus Process: Is This a Fair Choice?. CBE: Life Sciences Education, 2005, 4, 196-198.	0.7	27
54	Î²-catenin and its regulatory network. Human Pathology, 2005, 36, 225-227.	2.0	37

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55	SOX7 is an immediate-early target of VegT and regulates Nodal-related gene expression in Xenopus. Developmental Biology, 2005, 278, 526-541.	2.0	44
56	Embryonic expression of Xenopus laevis SOX7. Gene Expression Patterns, 2004, 4, 29-33.	0.8	27
57	Repression of nodal expression by maternal B1-type SOXs regulates germ layer formation in Xenopus and zebrafish. Developmental Biology, 2004, 273, 23-37.	2.0	56
58	Acute effects of desmin mutations on cytoskeletal and cellular integrity in cardiac myocytes. Cytoskeleton, 2003, 54, 105-121.	4.4	16
59	Biliteracy and Teaching Efficacy: What Biologists Can Learn from Physicists. CBE: Life Sciences Education, 2003, 2, 155-161.	0.7	68
60	Limb development in a ?nonmodel? vertebrate, the direct-developing frogEleutherodactylus coqui. The Journal of Experimental Zoology, 2001, 291, 375-388.	1.4	44
61	Cadherins and catenins, Wnts and SOXs: Embryonic patterning in Xenopus. International Review of Cytology, 2001, 203, 291-355.	6.2	18
62	A comparative evaluation of Î²-catenin and plakoglobin signaling activity. Oncogene, 2000, 19, 5720-5728.	5.9	63
63	Membrane-anchored Plakoglobins Have Multiple Mechanisms of Action in Wnt Signaling. Molecular Biology of the Cell, 1999, 10, 3151-3169.	2.1	50
64	Weaving a tangled web: the interconnected cytoskeleton. Nature Cell Biology, 1999, 1, E121-E123.	10.3	39
65	Plakophilin, armadillo repeats, and nuclear localization. Microscopy Research and Technique, 1999, 45, 43-54.	2.2	31
66	Regulation of Wnt Signaling by Sox Proteins. Molecular Cell, 1999, 4, 487-498.	9.7	334
67	Inhibition of Neural Crest Migration in Xenopus Using Antisense Slug RNA. Developmental Biology, 1999, 213, 101-115.	2.0	136
68	Jaw muscle development as evidence for embryonic repatterning in directâ€"developing frogs. Proceedings of the Royal Society B: Biological Sciences, 1997, 264, 1349-1354.	2.6	45
69	Cytoplasmically Anchored Plakoglobin Induces a WNT-like Phenotype inXenopus. Developmental Biology, 1997, 185, 67-81.	2.0	70
70	Minireviews, minidogmas and mythinformation. BioEssays, 1997, 19, 537-539.	2.5	15
71	Localizing the adhesive and signaling functions of plakoglobin. , 1997, 20, 91-102.		48
72	Intermediate filaments as dynamic structures. Cancer and Metastasis Reviews, 1996, 15, 417-428.	5.9	9

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73	14 Intermediate Filament Organization, Reorganization, and Function in the Clawed Frog Xenopus. Current Topics in Developmental Biology, 1996, 31, 455-486.	2.2	19
74	Chapter 7 Intermediate filaments: A medical overview. Principles of Medical Biology, 1995, 2, 147-188.	0.1	1
75	Intermediate filaments: new proteins, some answers, more questions. Current Opinion in Cell Biology, 1995, 7, 46-54.	5.4	98
76	The body language of cells: The intimate connection between cell adhesion and behavior. Cell, 1995, 83, 5-8.	28.9	112
77	Type II collagen distribution during cranial development in Xenopus laevis. Anatomy and Embryology, 1994, 189, 81-9.	1.5	30
78	Desmin organization during the differentiation of the dorsal myotome in Xenopus laevis. Differentiation, 1994, 56, 31-38.	1.9	20
79	Morphogenesis and the Cytoskeleton: Studies of the Xenopus Embryo. Developmental Biology, 1994, 165, 372-384.	2.0	35
80	Differential organization of desmin and vimentin in muscle is due to differences in their head domains.. Journal of Cell Biology, 1994, 126, 445-456.	5.2	46
81	Cranial ontogeny in the direct-developing frog,Eleutherodactylus coqui (anura: Leptodactylidae), analyzed using whole-mount immunohistochemistry. Journal of Morphology, 1992, 211, 95-118.	1.2	104
82	Chapter 22 Whole-Mount Staining of Xenopus and Other Vertebrates. Methods in Cell Biology, 1991, 36, 419-441.	1.1	195
83	Getting under the skin. Nature, 1991, 354, 264-265.	27.8	11
84	Whole-Mount Analyses of Cytoskeletal Reorganization and Function during Oogenesis and Early Embryogenesis in Xenopus. , 1989, , 63-103.		33
85	Functions of intermediate filaments. Cytoskeleton, 1989, 14, 309-331.	4.4	175
86	MPF-induced breakdown of cytokeratin filament organization in the maturing Xenopus oocyte depends upon the translation of maternal mRNAs. Developmental Biology, 1989, 134, 479-485.	2.0	36
87	The appearance of acetylated Î±-tubulin during early development and cellular differentiation in Xenopus. Developmental Biology, 1989, 136, 104-117.	2.0	145
88	Metabolic inhibitors and intermediate filament organization in human fibroblasts. Experimental Cell Research, 1988, 174, 282-290.	2.6	41
89	Metabolic inhibitors and mitosis: I. Effects of dinitrophenol/deoxyglucose and nocodazole on the live spindle. Protoplasma, 1986, 131, 47-59.	2.1	24
90	Metabolic inhibitors and mitosis: II. Effects of dinitrophenol/deoxyglucose and nocodazole on the microtubule cytoskeleton. Protoplasma, 1986, 131, 60-74.	2.1	23

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91	Cellular and Secreted Forms of Acetylcholinesterase in Mouse Muscle Cultures. Journal of Neurochemistry, 1985, 45, 1932-1940.	3.9	13
92	Structure and function of an acetylcholine receptor. Biophysical Journal, 1982, 37, 371-383.	0.5	290
93	Intermediate filaments in 3T3 cells collapse after intracellular injection of a monoclonal anti-intermediate filament antibody. Nature, 1981, 291, 249-251.	27.8	173
94	Immunospecific identification and three-dimensional structure of a membrane-bound acetylcholine receptor from Torpedo californica. Journal of Molecular Biology, 1979, 128, 319-334.	4.2	151
95	Structural studies of a membrane-bound acetylcholine receptor from Torpedo californica. Journal of Molecular Biology, 1977, 116, 635-659.	4.2	181
96	Debunking Key and Lock Biology: Exploring the prevalence and persistence of studentsâ€™ misconceptions on the nature and flexibility of molecular interactions . Matters Select, 0, , .	3.0	2