

G Andrew Woolley

List of Publications by Year in descending order

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120
papers

8,750
citations

53660

45
h-index

43802

91
g-index

130
all docs

130
docs citations

130
times ranked

6399
citing authors

#	ARTICLE	IF	CITATIONS
1	Point (S-to-G) Mutations in the W(S/G)GE Motif in Red/Green Cyanobacteriochrome GAF Domains Enhance Thermal Reversion Rates. <i>Biochemistry</i> , 2022, 61, 1444-1455.	1.2	1
2	Structure-based design of a photoswitchable affibody scaffold. <i>Protein Science</i> , 2021, 30, 2359-2372.	3.1	8
3	Directed evolution approaches for optogenetic tool development. <i>Biochemical Society Transactions</i> , 2021, 49, 2737-2748.	1.6	4
4	A time-dependent role for the transcription factor CREB in neuronal allocation to an engram underlying a fear memory revealed using a novel in vivo optogenetic tool to modulate CREB function. <i>Neuropsychopharmacology</i> , 2020, 45, 916-924.	2.8	25
5	Yeast Two-Hybrid Screening of Photoswitchable Protein-Protein Interaction Libraries. <i>Journal of Molecular Biology</i> , 2020, 432, 3113-3126.	2.0	15
6	Intramolecular cross-linking of proteins with azobenzene-based cross-linkers. <i>Methods in Enzymology</i> , 2019, 624, 129-149.	0.4	3
7	Detection of Incorporation of <i>p</i> -Coumaric Acid into Photoactive Yellow Protein Variants <i>in Vivo</i> . <i>Biochemistry</i> , 2019, 58, 2682-2694.	1.2	6
8	A Yeast System for Discovering Optogenetic Inhibitors of Eukaryotic Translation Initiation. <i>ACS Synthetic Biology</i> , 2019, 8, 744-757.	1.9	16
9	Photoswitchable Affinity Reagents: Computational Design and Efficient Red-Light Switching. <i>ChemPhotoChem</i> , 2019, 3, 431-440.	1.5	15
10	Illuminating the photoisomerization of a modified azobenzene single crystal by femtosecond absorption spectroscopy. <i>Canadian Journal of Chemistry</i> , 2019, 97, 488-495.	0.6	1
11	Synthesis and characterization of bis(4-amino-2-bromo-6-methoxy)azobenzene derivatives. <i>Beilstein Journal of Organic Chemistry</i> , 2019, 15, 3000-3008.	1.3	8
12	Selection of Protein-Protein Interactions of Desired Affinities with a Bandpass Circuit. <i>Journal of Molecular Biology</i> , 2019, 431, 391-400.	2.0	2
13	Modular design of optically controlled protein affinity reagents. <i>Chemical Communications</i> , 2018, 54, 1591-1594.	2.2	16
14	Computational Design of a Photocontrolled Cytosine Deaminase. <i>Journal of the American Chemical Society</i> , 2018, 140, 14-17.	6.6	26
15	Discovering Selective Binders for Photoswitchable Proteins Using Phage Display. <i>ACS Synthetic Biology</i> , 2018, 7, 2355-2364.	1.9	24
16	Duplication of a Single Strand in a β -Sheet Can Produce a New Switching Function in a Photosensory Protein. <i>Biochemistry</i> , 2018, 57, 4093-4104.	1.2	1
17	Strategies for the photo-control of endogenous protein activity. <i>Current Opinion in Structural Biology</i> , 2017, 45, 53-58.	2.6	14
18	Near-Infrared Photoswitching of Azobenzenes under Physiological Conditions. <i>Journal of the American Chemical Society</i> , 2017, 139, 13483-13486.	6.6	170

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19	Molecular Machines. <i>ChemPhysChem</i> , 2016, 17, 1713-1714.	1.0	3
20	A Red-Light Azobenzene Di-Maleimide Photoswitch: Pros and Cons. <i>Advanced Optical Materials</i> , 2016, 4, 1402-1409.	3.6	21
21	Photo Control of Protein Function Using Photoactive Yellow Protein. <i>Methods in Molecular Biology</i> , 2016, 1408, 79-92.	0.4	8
22	Origins of the Intermediate Spectral Form in M100 Mutants of Photoactive Yellow Protein. <i>Photochemistry and Photobiology</i> , 2015, 91, 985-991.	1.3	7
23	Optimizing the Photocontrol of bZIP Coiled Coils with Azobenzene Crosslinkers: Role of the Crosslinking Site. <i>ChemBioChem</i> , 2015, 16, 1757-1763.	1.3	24
24	Tuning the Attempt Frequency of Protein Folding Dynamics via Transition-State Rigidification: Application to Trp-Cage. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 521-526.	2.1	13
25	Photo-control of DNA binding by an engrailed homeodomain-photoactive yellow protein hybrid. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 1729-1736.	1.6	9
26	Red, far-red, and near infrared photoswitches based on azonium ions. <i>Chemical Communications</i> , 2015, 51, 12981-12984.	2.2	95
27	An <i>Escherichia coli</i> system for evolving improved light-controlled DNA-binding proteins. <i>Protein Engineering, Design and Selection</i> , 2015, 28, 293-302.	1.0	8
28	Red-Shifting Azobenzene Photoswitches for in Vivo Use. <i>Accounts of Chemical Research</i> , 2015, 48, 2662-2670.	7.6	481
29	Optogenetic Inhibitor of the Transcription Factor CREB. <i>Chemistry and Biology</i> , 2015, 22, 1531-1539.	6.2	34
30	Long wavelength optical control of glutamate receptor ion channels using a tetra-ortho-substituted azobenzene derivative. <i>Chemical Communications</i> , 2014, 50, 14613-14615.	2.2	89
31	Optical Control of Protein-Protein Interactions via Blue Light-Induced Domain Swapping. <i>Biochemistry</i> , 2014, 53, 5008-5016.	1.2	27
32	The effect of azobenzene cross-linker position on the degree of helical peptide photo-control. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 5325.	1.5	24
33	Robust visible light photoswitching with ortho-thiol substituted azobenzenes. <i>Chemical Communications</i> , 2013, 49, 10314.	2.2	137
34	An open and shut cage. <i>Nature Nanotechnology</i> , 2013, 8, 892-893.	15.6	8
35	Photoswitching Azo Compounds in Vivo with Red Light. <i>Journal of the American Chemical Society</i> , 2013, 135, 9777-9784.	6.6	413
36	A Circularly Permuted Photoactive Yellow Protein as a Scaffold for Photoswitch Design. <i>Biochemistry</i> , 2013, 52, 3320-3331.	1.2	24

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37	Photoswitching of <i>ortho</i> -Substituted Azonium Ions by Red Light in Whole Blood. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 14127-14130.	7.2	119
38	Lighting up with azobenzenes. <i>Nature Chemistry</i> , 2012, 4, 75-77.	6.6	13
39	Quantitative Analysis of the Effects of Photoswitchable Distance Constraints on the Structure of a Globular Protein. <i>Biochemistry</i> , 2012, 51, 6421-6431.	1.2	23
40	A bisazobenzene crosslinker that isomerizes with visible light. <i>Beilstein Journal of Organic Chemistry</i> , 2012, 8, 2184-2190.	1.3	20
41	Reversible Photocontrol of Peptide Conformation with a Rhodopsin-like Photoswitch. <i>Journal of the American Chemical Society</i> , 2012, 134, 6960-6963.	6.6	70
42	Bidirectional Photocontrol of Peptide Conformation with a Bridged Azobenzene Derivative. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 6452-6455.	7.2	138
43	Designing Chimeric LOV Photoswitches. <i>Chemistry and Biology</i> , 2012, 19, 441-442.	6.2	4
44	Light-Controlled Gene Switches in Mammalian Cells. <i>Methods in Molecular Biology</i> , 2012, 813, 195-210.	0.4	4
45	Improving a Designed Photocontrolled DNA-Binding Protein. <i>Biochemistry</i> , 2011, 50, 1226-1237.	1.2	33
46	Azobenzene Photoswitching without Ultraviolet Light. <i>Journal of the American Chemical Society</i> , 2011, 133, 19684-19687.	6.6	527
47	Azobenzene photoswitches for biomolecules. <i>Chemical Society Reviews</i> , 2011, 40, 4422.	18.7	1,503
48	Fluorescence Imaging of Azobenzene Photoswitching In Vivo. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 1325-1327.	7.2	135
49	Bis-Azobenzene Crosslinkers for Photocontrol of Peptide Structure. <i>ChemBioChem</i> , 2011, 12, 1712-1723.	1.3	39
50	Photoswitch Design. <i>Neuromethods</i> , 2011, , 171-184.	0.2	3
51	Photocontrol of Coiled-Coil Proteins in Living Cells. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 3943-3946.	7.2	108
52	A collection of caged compounds for probing roles of local translation in neurobiology. <i>Bioorganic and Medicinal Chemistry</i> , 2010, 18, 7746-7752.	1.4	20
53	Structure-Based Design of a Photocontrolled DNA Binding Protein. <i>Journal of Molecular Biology</i> , 2010, 399, 94-112.	2.0	46
54	A photoswitchable DNA-binding protein based on a truncated GCN4-photoactive yellow protein chimera. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 1320-1326.	1.6	31

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55	Structure-Based Approach to the Photocontrol of Protein Folding. <i>Journal of the American Chemical Society</i> , 2009, 131, 2283-2289.	6.6	98
56	Spectral Tuning of Azobenzene Photoswitches for Biological Applications. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 1484-1486.	7.2	204
57	Synthesis and Characterization of a Long, Rigid Photoswitchable Cross-Linker for Promoting Peptide and Protein Conformational Change. <i>ChemBioChem</i> , 2008, 9, 2147-2154.	1.3	33
58	Photo-control of peptide conformation on a timescale of seconds with a conformationally constrained, blue-absorbing, photo-switchable linker. <i>Organic and Biomolecular Chemistry</i> , 2008, 6, 4323.	1.5	39
59	α -Helix folding in the presence of structural constraints. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 9588-9593.	3.3	116
60	Folding and unfolding of a photoswitchable peptide from picoseconds to microseconds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 5383-5388.	3.3	85
61	Stabilization of Folded Peptide and Protein Structures via Distance Matching with a Long, Rigid Cross-Linker. <i>Journal of the American Chemical Society</i> , 2007, 129, 14154-14155.	6.6	87
62	Channel-Forming Activity of Alamethicin: Effects of Covalent Tethering. <i>Chemistry and Biodiversity</i> , 2007, 4, 1323-1337.	1.0	26
63	Synthesis of 3,3'-bis(sulfonato)-4,4'-bis(chloroacetamido)azobenzene and cysteine cross-linking for photo-control of protein conformation and activity. <i>Nature Protocols</i> , 2007, 2, 251-258.	5.5	63
64	A Blue-Green Absorbing Cross-Linker for Rapid Photoswitching of Peptide Helix Content. <i>Bioconjugate Chemistry</i> , 2006, 17, 670-676.	1.8	51
65	Reversible Photocontrol of DNA Binding by a Designed GCN4-bZIP Protein. <i>Biochemistry</i> , 2006, 45, 6075-6084.	1.2	94
66	sGAL: a computational method for finding surface exposed sites in proteins suitable for Cys-mediated cross-linking. <i>Bioinformatics</i> , 2006, 22, 3101-3102.	1.8	11
67	Reversibility of conformational switching in light-sensitive peptides. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2005, 173, 21-28.	2.0	44
68	Photochemical Regulation of DNA-Binding Specificity of MyoD. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 7778-7782.	7.2	71
69	Photocontrolling Peptide α Helices. <i>ChemInform</i> , 2005, 36, no.	0.1	0
70	α -Helix formation in a photoswitchable peptide tracked from picoseconds to microseconds by time-resolved IR spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 2379-2384.	3.3	186
71	Photocontrol of DNA Binding Specificity of a Miniature Engrailed Homeodomain. <i>Journal of the American Chemical Society</i> , 2005, 127, 15624-15629.	6.6	89
72	Photocontrolling Peptide α Helices. <i>Accounts of Chemical Research</i> , 2005, 38, 486-493.	7.6	216

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73	Engineering charge selectivity in model ion channels. <i>Bioorganic and Medicinal Chemistry</i> , 2004, 12, 1337-1342.	1.4	10
74	Reversible Photocontrol of Peptide Helix Content: Adjusting Thermal Stability of the Cis State. <i>Bioconjugate Chemistry</i> , 2004, 15, 1297-1303.	1.8	51
75	Photomodulation of ionic current through hemithioindigo-modified gramicidin channels. <i>Organic and Biomolecular Chemistry</i> , 2004, 2, 2798-2801.	1.5	88
76	Origins of Helix-Coil Switching in a Light-Sensitive Peptide. <i>Biochemistry</i> , 2004, 43, 15329-15338.	1.2	50
77	Modeling ion channel regulation. <i>Current Opinion in Chemical Biology</i> , 2003, 7, 710-714.	2.8	22
78	A Water-Soluble Azobenzene Cross-Linker for Photocontrol of Peptide Conformation. <i>Bioconjugate Chemistry</i> , 2003, 14, 824-829.	1.8	85
79	Prevention of Peptide Fibril Formation in an Aqueous Environment by Mutation of a Single Residue to Aib. <i>Biochemistry</i> , 2003, 42, 4492-4498.	1.2	25
80	The Kinetics of Helix Unfolding of an Azobenzene Cross-Linked Peptide Probed by Nanosecond Time-Resolved Optical Rotatory Dispersion. <i>Journal of the American Chemical Society</i> , 2003, 125, 12443-12449.	6.6	64
81	Simultaneous Optical and Electrical Recording of Single Gramicidin Channels. <i>Biophysical Journal</i> , 2003, 84, 612-622.	0.2	130
82	Understanding pH-Dependent Selectivity of Alamethicin K18 Channels by Computer Simulation. <i>Biophysical Journal</i> , 2003, 84, 1464-1469.	0.2	19
83	Achieving photo-control of protein conformation and activity: producing a photo-controlled leucine zipper. <i>Faraday Discussions</i> , 2003, 122, 89-103.	1.6	27
84	Photo-control of peptide helix content by an azobenzene cross-linker: steric interactions with underlying residues are not critical. <i>Protein Engineering, Design and Selection</i> , 2002, 15, 561-569.	1.0	35
85	Gramicidin derivatives as membrane-based pH sensors. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2002, 1558, 26-33.	1.4	25
86	Polyanions Decelerate the Kinetics of Positively Charged Gramicidin Channels as Shown by Sensitized Photoinactivation. <i>Biophysical Journal</i> , 2002, 82, 1308-1318.	0.2	18
87	Using an Azobenzene Cross-Linker to Either Increase or Decrease Peptide Helix Content upon Trans-to-Cis Photoisomerization. <i>Chemistry and Biology</i> , 2002, 9, 391-397.	6.2	150
88	Site-specific biosynthetic incorporation of a fluorescent tag into proteins via Cysteine-tRNACys. <i>Analytical Biochemistry</i> , 2002, 307, 252-257.	1.1	5
89	Fluorescent Gramicidin Derivatives for Single-Molecule Fluorescence and Ion Channel Measurements. <i>Bioconjugate Chemistry</i> , 2001, 12, 594-602.	1.8	23
90	Kinetic characterization of ribonuclease S mutants containing photoisomerizable phenylazophenylalanine residues. <i>Protein Engineering, Design and Selection</i> , 2001, 14, 983-991.	1.0	46

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91	The biochemical activities of the aggregate formed by linear gramicidin in an aqueous environment. <i>Biochemical Society Transactions</i> , 2000, 28, A348-A348.	1.6	0
92	Photo-control of helix content in a short peptide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 3803-3808.	3.3	275
93	A Cysteine-Free Firefly Luciferase Retains Luminescence Activity. <i>Biochemical and Biophysical Research Communications</i> , 2000, 267, 394-397.	1.0	16
94	Protonation of Lysine Residues Inverts Cation/Anion Selectivity in a Model Channel. <i>Biophysical Journal</i> , 2000, 78, 1335-1348.	0.2	42
95	Optical Switching of Ion ⁺ Dipole Interactions in a Gramicidin Channel Analogue. <i>Journal of the American Chemical Society</i> , 2000, 122, 6364-6370.	6.6	73
96	PATIC: a conformationally constrained photoisomerizable amino acid. <i>Chemical Biology and Drug Design</i> , 1999, 53, 560-568.	1.2	7
97	An Anion-Selective Analogue of the Channel-Forming Peptide Alamethicin ⁺ . <i>Biochemistry</i> , 1999, 38, 6144-6150.	1.2	32
98	Engineering Charge Selectivity in Alamethicin Channels. <i>Novartis Foundation Symposium</i> , 1999, 225, 62-73.	1.2	0
99	The structure and function of antiameobin I, a proline-rich membrane-active polypeptide. <i>Structure</i> , 1998, 6, 783-792.	1.6	68
100	A Fluorescence-Based Assay for Ribonuclease A Activity. <i>Analytical Biochemistry</i> , 1998, 264, 26-33.	1.1	14
101	Structure ⁺ Function Relationships in Helix-Bundle Channels Probed via Total Chemical Synthesis of Alamethicin Dimers: A Effects of a Gln7to Asn7Mutation ⁺ . <i>Biochemistry</i> , 1997, 36, 13873-13881.	1.2	22
102	Development of a Novel Thiol Reagent for Probing Ion Channel Structure: A Studies in a Model System. <i>Biochemistry</i> , 1997, 36, 1343-1348.	1.2	13
103	Intrinsic rectification of ion flux in alamethicin channels: studies with an alamethicin dimer. <i>Biophysical Journal</i> , 1997, 73, 770-778.	0.2	49
104	Voltage-dependent behavior of a "ball-and-chain" gramicidin channel. <i>Biophysical Journal</i> , 1997, 73, 2465-2475.	0.2	42
105	Role of Lipids in the Permeabilization of Membranes by Class L Amphipathic Helical Peptides. <i>Biochemistry</i> , 1997, 36, 9237-9245.	1.2	43
106	Site-specific incorporation of photoisomerizable azobenzene groups into ribonuclease S. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1997, 7, 2677-2680.	1.0	58
107	Photomodulated Blocking of Gramicidin Ion Channels. <i>Journal of the American Chemical Society</i> , 1996, 118, 12222-12223.	6.6	77
108	Engineering Stabilized Ion Channels: A Covalent Dimers of Alamethicin ⁺ . <i>Biochemistry</i> , 1996, 35, 6225-6232.	1.2	84

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109	[4] Use of ionophores for manipulating intracellular ion concentrations. <i>Methods in Neurosciences</i> , 1995, 27, 52-68.	0.5	4
110	Characterization of Thermal Isomerization at the Single Molecule Level. <i>The Journal of Physical Chemistry</i> , 1995, 99, 13352-13355.	2.9	24
111	Design of Regulated Ion Channels Using Measurements of Cis-Trans Isomerization in Single Molecules. <i>Journal of the American Chemical Society</i> , 1995, 117, 4448-4454.	6.6	70
112	C-terminal amino groups facilitate membrane incorporation of gramicidin derivatives. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1995, 1234, 133-138.	1.4	10
113	Alamethicin Pyromellitate: An Ion-Activated Channel-Forming Peptide. <i>Biochemistry</i> , 1994, 33, 6850-6858.	1.2	37
114	Temperature dependence of the interaction of alamethicin helices in membranes. <i>Biochemistry</i> , 1993, 32, 9819-9825.	1.2	57
115	Model ion channels: Gramicidin and alamethicin. <i>Journal of Membrane Biology</i> , 1992, 129, 109-36.	1.0	261
116	Conformations of proline residues in membrane environments. <i>Biopolymers</i> , 1990, 29, 149-157.	1.2	68
117	A lipid vesicle system for probing voltage-dependent peptide-lipid interactions: Application to alamethicin channel formation. <i>Biopolymers</i> , 1989, 28, 267-272.	1.2	36
118	Evidence for similar function of transmembrane segments in receptor and membrane-anchored proteins. <i>Biopolymers</i> , 1988, 27, 1171-1182.	1.2	15
119	Potential-sensitive membrane association of a fluorescent dye. <i>FEBS Letters</i> , 1987, 224, 337-342.	1.3	37
120	Peptides in membranes: Lipid-induced secondary structure of substance P. <i>Biopolymers</i> , 1987, 26, S109-S121.	1.2	70