Philip E Dawson

List of Publications by Year
in descending order

87 papers	11,406 citations	81743 39 h-index	46693 89 g-index
172 all docs	172 docs citations	172 times ranked	10092 citing authors

#	Article	IF	Citations
1	Synthesis of proteins by native chemical ligation. Science, 1994, 266, 776-779.	6.0	3,712
2	Synthesis of Native Proteins by Chemical Ligation. Annual Review of Biochemistry, 2000, 69, 923-960.	5.0	1,049
3	An Efficient Fmocâ€SPPS Approach for the Generation of Thioester Peptide Precursors for Use in Native Chemical Ligation. Angewandte Chemie - International Edition, 2008, 47, 6851-6855.	7.2	449
4	Nucleophilic Catalysis of Oxime Ligation. Angewandte Chemie - International Edition, 2006, 45, 7581-7584.	7.2	440
5	Nucleophilic Catalysis of Hydrazone Formation and Transimination:Â Implications for Dynamic Covalent Chemistry. Journal of the American Chemical Society, 2006, 128, 15602-15603.	6.6	394
6	Cellular Uptake and Fate of PEGylated Gold Nanoparticles Is Dependent on Both Cell-Penetration Peptides and Particle Size. ACS Nano, 2011, 5, 6434-6448.	7.3	381
7	Rapid Oxime and Hydrazone Ligations with Aromatic Aldehydes for Biomolecular Labeling. Bioconjugate Chemistry, 2008, 19, 2543-2548.	1.8	324
8	Multifunctional Compact Zwitterionic Ligands for Preparing Robust Biocompatible Semiconductor Quantum Dots and Gold Nanoparticles. Journal of the American Chemical Society, 2011, 133, 9480-9496.	6.6	276
9	Kinetics of Metal-Affinity Driven Self-Assembly between Proteins or Peptides and CdSeâ^'ZnS Quantum Dots. Journal of Physical Chemistry C, 2007, 111, 11528-11538.	1.5	257
10	Self-Assembled Quantum Dotâ^'Peptide Bioconjugates for Selective Intracellular Delivery. Bioconjugate Chemistry, 2006, 17, 920-927.	1.8	246
11	Recent progress in the bioconjugation of quantum dots. Coordination Chemistry Reviews, 2014, 263-264, 101-137.	9.5	190
12	Chemical Protein Synthesis Using a Second-Generation <i>N</i>-Acylurea Linker for the Preparation of Peptide-Thioester Precursors. Journal of the American Chemical Society, 2015, 137, 7197-7209.	6.6	179
13	Intracellular Delivery of Quantum Dotâ^'Protein Cargos Mediated by Cell Penetrating Peptides. Bioconjugate Chemistry, 2008, 19, 1785-1795.	1.8	155
14	Acetoneâ€Linked Peptides: A Convergent Approach for Peptide Macrocyclization and Labeling. Angewandte Chemie - International Edition, 2015, 54, 8665-8668.	7.2	143
15	Delivering quantum dot-peptide bioconjugates to the cellular cytosol: escaping from the endolysosomal system. Integrative Biology (United Kingdom), 2010, 2, 265.	0.6	124
16	Selecting Improved Peptidyl Motifs for Cytosolic Delivery of Disparate Protein and Nanoparticle Materials. ACS Nano, 2013, 7, 3778-3796.	7.3	124
17	Autocrine selection of a GLP-1R G-protein biased agonist with potent antidiabetic effects. Nature Communications, 2015, 6, 8918.	5.8	124
18	Expanding Reactivity in DNA-Encoded Library Synthesis via Reversible Binding of DNA to an Inert Quaternary Ammonium Support. Journal of the American Chemical Society, 2019, 141, 9998-10006.	6.6	119

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19	Spatiotemporal Multicolor Labeling of Individual Cells Using Peptide-Functionalized Quantum Dots and Mixed Delivery Techniques. Journal of the American Chemical Society, 2011, 133, 10482-10489.	6.6	115
20	Native Chemical Ligation Combined with Desulfurization and Deselenization: A General Strategy for Chemical Protein Synthesis. Israel Journal of Chemistry, 2011, 51, 862-867.	1.0	115
21	Cytotoxicity of Quantum Dots Used for <i>In Vitro</i> Cellular Labeling: Role of QD Surface Ligand, Delivery Modality, Cell Type, and Direct Comparison to Organic Fluorophores. Bioconjugate Chemistry, 2013, 24, 1570-1583.	1.8	113
22	Leveraging the Knorr Pyrazole Synthesis for the Facile Generation of Thioester Surrogates for use in Native Chemical Ligation. Angewandte Chemie - International Edition, 2018, 57, 11634-11639.	7.2	113
23	Enhanced Catalysis of Oxime-Based Bioconjugations by Substituted Anilines. Bioconjugate Chemistry, 2014, 25, 93-101.	1.8	110
24	Polyvalent Display and Packing of Peptides and Proteins on Semiconductor Quantum Dots: Predicted Versus Experimental Results. Small, 2010, 6, 555-564.	5.2	109
25	Combining Chemoselective Ligation with Polyhistidine-Driven Self-Assembly for the Modular Display of Biomolecules on Quantum Dots. ACS Nano, 2010, 4, 267-278.	7.3	91
26	Photoligation of an Amphiphilic Polymer with Mixed Coordination Provides Compact and Reactive Quantum Dots. Journal of the American Chemical Society, 2015, 137, 5438-5451.	6.6	91
27	Synthesis of constrained helical peptides by thioether ligation: application to analogs of gp41. Chemical Communications, 2005, , 2552.	2.2	83
28	Purple-, Blue-, and Green-Emitting Multishell Alloyed Quantum Dots: Synthesis, Characterization, and Application for Ratiometric Extracellular pH Sensing. Chemistry of Materials, 2017, 29, 7330-7344.	3.2	74
29	On Resin Side-Chain Cyclization of Complex Peptides Using CuAAC. Organic Letters, 2011, 13, 2822-2825.	2.4	71
30	Quantum Dotâ€"Peptideâ€"Fullerene Bioconjugates for Visualization of <i>in Vitro</i> and <i>in Vivo</i> Cellular Membrane Potential. ACS Nano, 2017, 11, 5598-5613.	7.3	68
31	Delivery and Tracking of Quantum Dot Peptide Bioconjugates in an Intact Developing Avian Brain. ACS Chemical Neuroscience, 2015, 6, 494-504.	1.7	67
32	Concurrent Modulation of Quantum Dot Photoluminescence Using a Combination of Charge Transfer and FÃ¶rster Resonance Energy Transfer: Competitive Quenching and Multiplexed Biosensing Modality. Journal of the American Chemical Society, 2017, 139, 363-372.	6.6	64
33	Recent Advances in Biocatalysis with Chemical Modification and Expanded Amino Acid Alphabet. Chemical Reviews, 2021, 121, 6173-6245.	23.0	62
34	Nanoparticle Targeting to Neurons in a Rat Hippocampal Slice Culture Model. ASN Neuro, 2012, 4, AN20120042.	1.5	61
35	Serine-Selective Bioconjugation. Journal of the American Chemical Society, 2020, 142, 17236-17242.	6.6	58
36	Oxime conjugation in protein chemistry: from carbonyl incorporation to nucleophilic catalysis. Journal of Peptide Science, 2016, 22, 271-279.	0.8	52

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37	DNA Encoded Libraries: A Visitor's Guide. Israel Journal of Chemistry, 2020, 60, 268-280.	1.0	51
38	Structure of Hepatitis C Virus Envelope Glycoprotein E1 Antigenic Site 314â€“324 in Complex with Antibody IGH526. Journal of Molecular Biology, 2015, 427, 2617-2628.	2.0	44
39	RASSâ€Enabled S/Pâ˘C and Sâ˘N Bond Formation for DEL Synthesis. Angewandte Chemie - International Edition, 2020, 59, 7377-7383.	7.2	44
40	Methods, setup and safe handling for anhydrous hydrogen fluoride cleavage in Boc solid-phase peptide synthesis. Nature Protocols, 2015, 10, 1067-1083.	5.5	41
41	The Role of Negative Charge in the Delivery of Quantum Dots to Neurons. ASN Neuro, 2015, 7, 175909141559238.	1.5	39
42	Site-specific cellular delivery of quantum dots with chemoselectively-assembled modular peptides. Chemical Communications, 2013, 49, 7878.	2.2	37
43	Copying Life: Synthesis of an Enzymatically Active Mirror-Image DNA-Ligase Made of D-Amino Acids. Cell Chemical Biology, 2019, 26, 645-651.e3.	2.5	33
44	Leveraging the Knorr Pyrazole Synthesis for the Facile Generation of Thioester Surrogates for use in Native Chemical Ligation. Angewandte Chemie, 2018, 130, 11808-11813.	1.6	32
45	Examining the Polyproline Nanoscopic Ruler in the Context of Quantum Dots. Chemistry of Materials, 2015, 27, 6222-6237.	3.2	30
46	Synthesizing and Modifying Peptides for Chemoselective Ligation and Assembly into Quantum Dot-Peptide Bioconjugates. Methods in Molecular Biology, 2013, 1025, 47-73.	0.4	29
47	Nanoparticle cellular uptake by dendritic wedge peptides: achieving single peptide facilitated delivery. Nanoscale, 2017, 9, 10447-10464.	2.8	28
48	Synthesis of a three zinc finger protein, Zif268, by native chemical ligation. , 1999, 51, 363-369.		26
49	Evaluation of diverse peptidyl motifs for cellular delivery of semiconductor quantum dots. Analytical and Bioanalytical Chemistry, 2013, 405, 6145-6154.	1.9	26
50	Temperature Dependence of CN and SCN IR Absorptions Facilitates Their Interpretation and Use as Probes of Proteins. Analytical Chemistry, 2015, 87, 11561-11567.	3.2	26
51	Rigid Peptide Macrocycles from Onâ€Resin Glaser Stapling. ChemBioChem, 2018, 19, 1031-1035.	1.3	25
52	Site-Specific Three-Color Labeling of Î±-Synuclein via Conjugation to Uniquely Reactive Cysteines during Assembly by Native Chemical Ligation. Cell Chemical Biology, 2018, 25, 797-801.e4.	2.5	25
53	3,4-Dihydroxyphenylalanine Peptides as Nonperturbative Quantum Dot Sensors of Aminopeptidase. ACS Nano, 2016, 10, 6090-6099.	7.3	23
54	Controlling the Architecture, Coordination, and Reactivity of Nanoparticle Coating Utilizing an Amino Acid Central Scaffold. Journal of the American Chemical Society, 2015, 137, 16084-16097.	6.6	22

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55	An L-RNA Aptamer that Binds and Inhibits RNase. Chemistry and Biology, 2015, 22, 1437-1441.	6.2	22
56	Arginine selective reagents for ligation to peptides and proteins. Journal of Peptide Science, 2016, 22, 311-319.	0.8	21
57	Adapting the Glaser Reaction for Bioconjugation: Robust Access to Structurally Simple, Rigid Linkers. Angewandte Chemie - International Edition, 2017, 56, 10438-10442.	7.2	21
58	Recent Advances in Enzyme Engineering through Incorporation of Unnatural Amino Acids. Biotechnology and Bioprocess Engineering, 2019, 24, 592-604.	1.4	21
59	Native Chemical Ligation of Peptides and Proteins. Current Protocols in Chemical Biology, 2019, 11, e61.	1.7	21
60	Trimerization of the HIV Transmembrane Domain in Lipid Bilayers Modulates Broadly Neutralizing Antibody Binding. Angewandte Chemie - International Edition, 2016, 55, 2688-2692.	7.2	20
61	An Integrated Cofactor/Coâ€Product Recycling Cascade for theâ€‰Biosynthesis of Nylon Monomers from Cycloalkylamines. Angewandte Chemie - International Edition, 2021, 60, 3481-3486.	7.2	19
62	Chemical synthesis of human protein S thrombin-sensitive module and first epidermal growth factor module. Biopolymers, 1998, 46, 53-63.	1.2	18
63	Two for the Price of One: Heterobivalent Ligand Design Targeting Two Binding Sites on Voltage-Gated Sodium Channels Slows Ligand Dissociation and Enhances Potency. Journal of Medicinal Chemistry, 2020, 63, 12773-12785.	2.9	15
64	Probing the Quenching of Quantum Dot Photoluminescence by Peptide-Labeled Ruthenium(II) Complexes. Journal of Physical Chemistry C, 2014, 118, 9239-9250.	1.5	14
65	Improving the Gastrointestinal Stability of Linaclotide. Journal of Medicinal Chemistry, 2021, 64, 8384-8390.	2.9	14
66	Click-Based Libraries of SFTI-1 Peptides: New Methods Using Reversed-Phase Silica. ACS Combinatorial Science, 2016, 18, 139-143.	3.8	13
67	Postâ€Translational Backbone Engineering through Selenomethionineâ€Mediated Incorporation of Freidinger Lactams. Angewandte Chemie - International Edition, 2018, 57, 8697-8701.	7.2	13
68	Synthetic Elaboration of Native DNA by RASS (SENDR). ACS Central Science, 2020, 6, 1789-1799.	5.3	12
69	Lightâ€Triggered In Situ Biosynthesis of Artificial Melanin for Skin Protection. Advanced Science, 2022, 9, e2103503.	5.6	12
70	Expedient on-resin synthesis of peptidic benzimidazoles. Bioorganic and Medicinal Chemistry Letters, 2018, 28, 2679-2681.	1.0	11
71	Structural characterization of anti-CCL5 activity of the tick salivary protein evasin-4. Journal of Biological Chemistry, 2020, 295, 14367-14378.	1.6	11
72	Borylated oximes: versatile building blocks for organic synthesis. Chemical Communications, 2017, 53, 11237-11240.	2.2	9

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73	<i>In vivo</i> biosynthesis of tyrosine analogs and their concurrent incorporation into a residue-specific manner for enzyme engineering. Chemical Communications, 2019, 55, 15133-15136.	2.2	9
74	RASSâ€Enabled S/Pâˆ’C and Sâˆ’N Bond Formation for DEL Synthesis. Angewandte Chemie, 2020, 132, 7447-7453.	1.6	9
75	Conformational Heterogeneity and DNA Recognition by the Morphogen Bicoid. Biochemistry, 2017, 56, 2787-2793.	1.2	8
76	Modern Peptide and Protein Chemistry: Reaching New Heights. Journal of Organic Chemistry, 2020, 85, 1328-1330.	1.7	8
77	Efficient Assembly of Quantum Dots with Homogenous Glycans Derived from Natural <i>N</i>-Linked Glycoproteins. Bioconjugate Chemistry, 2018, 29, 3144-3153.	1.8	7
78	Adapting the Glaser Reaction for Bioconjugation: Robust Access to Structurally Simple, Rigid Linkers. Angewandte Chemie, 2017, 129, 10574-10578.	1.6	6
79	Postâ€Translational Backbone Engineering through Selenomethionineâ€Mediated Incorporation of Freidinger Lactams. Angewandte Chemie, 2018, 130, 8833-8837.	1.6	4
80	Selenomethionine as an expressible handle for bioconjugations. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	4
81	A shelf stable Fmoc hydrazine resin for the synthesis of peptide hydrazides. Peptide Science, 2022, 114, .	1.0	3
82	Base-catalyzed diastereoselective trimerization of trifluoroacetone. Organic and Biomolecular Chemistry, 2017, 15, 5131-5134.	1.5	1
83	Scandium(III) Triflate as a Lewis Acid Catalyst of Oxime Ligation. Australian Journal of Chemistry, 2020, 73, 377.	0.5	1
84	Chemical synthesis of human protein S thrombin-sensitive module and first epidermal growth factor module. , 1998, 46, 53.		1
85	Synthesis of a three zinc finger protein, Zif268, by native chemical ligation. Biopolymers, 1999, 51, 363.	1.2	1
86	Exosite-Specific Inhibition of Thrombin Using Photo-Crosslinked Fluorescent Reporter Peptides.. Blood, 2005, 106, 1954-1954.	0.6	0
87	In Situ Neutralization Protocols for Boc-SPPS. Methods in Molecular Biology, 2020, 2103, 29-40.	0.4	0