Mark D Distefano

List of Publications by Year
in descending order

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111 papers	4,284 citations	117453 34 h-index	128067 60 g-index
117 all docs	117 docs citations	117 times ranked	4320 citing authors

#	Article	IF	Citations
1	Directed cell migration towards softer environments. Nature Materials, 2022, 21, 1081-1090.	13.3	86
2	Two-photon uncaging of bioactive thiols in live cells at wavelengths above 800 nm. Organic and Biomolecular Chemistry, 2021, 19, 2213-2223.	1.5	7
3	Neuronal Protein Farnesylation Regulates Hippocampal Synaptic Plasticity and Cognitive Function. Molecular Neurobiology, 2021, 58, 1128-1144.	1.9	18
4	Engineering reversible cellâ€“cell interactions using enzymatically lipidated chemically self-assembled nanorings. Chemical Science, 2021, 12, 331-340.	3.7	17
5	A Not-So-Ancient Grease History: Click Chemistry and Protein Lipid Modifications. Chemical Reviews, 2021, 121, 7178-7248.	23.0	61
6	Metabolic labeling with an alkyne probe reveals similarities and differences in the prenylomes of several brain-derived cell lines and primary cells. Scientific Reports, 2021, 11, 4367.	1.6	8
7	MALDI-MS Analysis of Peptide Libraries Expands the Scope of Substrates for Farnesyltransferase. International Journal of Molecular Sciences, 2021, 22, 12042.	1.8	7
8	Methoxy-Substituted Nitrodibenzofuran-Based Protecting Group with an Improved Two-Photon Action Cross-Section for Thiol Protection in Solid Phase Peptide Synthesis. Journal of Organic Chemistry, 2020, 85, 1614-1625.	1.7	11
9	Anti-EGFR Fibronectin Bispecific Chemically Self-Assembling Nanorings (CSANs) Induce Potent T Cell-Mediated Antitumor Responses and Downregulation of EGFR Signaling and PD-1/PD-L1 Expression. Journal of Medicinal Chemistry, 2020, 63, 10235-10245.	2.9	8
10	Red-shifted backbone Nâ€“H photocaging agents. Organic and Biomolecular Chemistry, 2020, 18, 5110-5114.	1.5	6
11	Splice switching an oncogenic ratio of SmgGDS isoforms as a strategy to diminish malignancy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3627-3636.	3.3	16
12	A Quantitative FRET Assay for the Upstream Cleavage Activity of the Integral Membrane Proteases Human ZMPSTE24 and Yeast Ste24. Methods in Molecular Biology, 2019, 2009, 279-293.	0.4	2
13	Optimization of Metabolic Labeling with Alkyne-Containing Isoprenoid Probes. Methods in Molecular Biology, 2019, 2009, 35-43.	0.4	6
14	Cysteine-ethylation of tissue-extracted membrane proteins as a tool to detect conformational states by solid-state NMR spectroscopy. Methods in Enzymology, 2019, 621, 281-304.	0.4	4
15	Synthesis and NMR Characterization of the Prenylated Peptide, a-Factor. Methods in Enzymology, 2019, 614, 207-238.	0.4	2
16	Site-Selective Enzymatic Labeling of Designed Ankyrin Repeat Proteins Using Protein Farnesyltransferase. Methods in Molecular Biology, 2019, 2033, 207-219.	0.4	4
17	Elucidation of the Substrate Binding Site of the Yeast Zinc Metalloprotease, Ste24. FASEB Journal, 2019, 33, 631.40.	0.2	0
18	Photo-immobilized EGF chemical gradients differentially impact breast cancer cell invasion and drug response in defined 3D hydrogels. Biomaterials, 2018, 178, 751-766.	5.7	56

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19	Efficient farnesylation of an extended C-terminal C(x)3X sequence motif expands the scope of the prenylated proteome. Journal of Biological Chemistry, 2018, 293, 2770-2785.	1.6	33
20	Isoprenoids and protein prenylation: implications in the pathogenesis and therapeutic intervention of Alzheimerâ€™s disease. Critical Reviews in Biochemistry and Molecular Biology, 2018, 53, 279-310.	2.3	95
21	a-Factor Analogues Containing Alkyne- and Azide-Functionalized Isoprenoids Are Efficiently Enzymatically Processed and Retain Wild-Type Bioactivity. Bioconjugate Chemistry, 2018, 29, 316-323.	1.8	11
22	Recent progress in enzymatic protein labelling techniques and their applications. Chemical Society Reviews, 2018, 47, 9106-9136.	18.7	184
23	Metabolic Labeling of Prenylated Proteins Using Alkyneâ€Modified Isoprenoid Analogues. Current Protocols in Chemical Biology, 2018, 10, e46.	1.7	18
24	Polymeric Medical Sutures: An Exploration of Polymers and Green Chemistry. Journal of Chemical Education, 2017, 94, 1761-1765.	1.1	19
25	a-Factor: a chemical biology tool for the study of protein prenylation. Current Topics in Peptide and Protein Research, 2017, 18, 133-151.	1.0	2
26	Global proteomic analysis of prenylated proteins in Plasmodium falciparum using an alkyne-modified isoprenoid analogue. Scientific Reports, 2016, 6, 38615.	1.6	63
27	Nitrodibenzofuran: A One- and Two-Photon Sensitive Protecting Group That Is Superior to Brominated Hydroxycoumarin for Thiol Caging in Peptides. Journal of the American Chemical Society, 2016, 138, 5848-5859.	6.6	58
28	6-Bromo-7-hydroxy-3-methylcoumarin (mBhc) is an efficient multi-photon labile protecting group for thiol caging and three-dimensional chemical patterning. Organic and Biomolecular Chemistry, 2016, 14, 8289-8300.	1.5	24
29	Metabolic Labeling with an Alkyne-modified Isoprenoid Analog Facilitates Imaging and Quantification of the Prenylome in Cells. ACS Chemical Biology, 2016, 11, 2820-2828.	1.6	36
30	Analogs of farnesyl diphosphate alter CaaX substrate specificity and reactions rates of protein farnesyltransferase. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 1333-1336.	1.0	12
31	8-Hydroxyquinoline-based inhibitors of the Rce1 protease disrupt Ras membrane localization in human cells. Bioorganic and Medicinal Chemistry, 2016, 24, 160-178.	1.4	47
32	Synthetic isoprenoid analogues for the study of prenylated proteins: Fluorescent imaging and proteomic applications. Bioorganic Chemistry, 2016, 64, 59-65.	2.0	11
33	Site-Specific PEGylation of Therapeutic Proteins. International Journal of Molecular Sciences, 2015, 16, 25831-25864.	1.8	234
34	Simultaneous Site-Specific Dual Protein Labeling Using Protein Prenyltransferases. Bioconjugate Chemistry, 2015, 26, 2542-2553.	1.8	25
35	Error-prone Translesion Synthesis Past DNA-Peptide Cross-links Conjugated to the Major Groove of DNA via C5 of Thymidine. Journal of Biological Chemistry, 2015, 290, 775-787.	1.6	32
36	Application of metaâ€ and paraâ€Phenylenediamine as Enhanced Oxime Ligation Catalysts for Protein Labeling, PEGylation, Immobilization, and Release. Current Protocols in Protein Science, 2015, 79, 15.4.1-15.4.28.	2.8	11

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37	The Frequency of Naive and Early-Activated Hapten-Specific B Cell Subsets Dictates the Efficacy of a Therapeutic Vaccine against Prescription Opioid Abuse. Journal of Immunology, 2015, 194, 5926-5936.	0.4	40
38	Synthesis of Peptides Containing C-Terminal Esters Using Trityl Side-Chain Anchoring: Applications to the Synthesis of C-Terminal Ester Analogs of the Saccharomyces cerevisiae Mating Pheromone a-Factor. Journal of Organic Chemistry, 2015, 80, 11266-11274.	1.7	20
39	Protein Prenylation: Enzymes, Therapeutics, and Biotechnology Applications. ACS Chemical Biology, 2015, 10, 51-62.	1.6	171
40	Effect of Currently Approved Carriers and Adjuvants on the Pre-Clinical Efficacy of a Conjugate Vaccine against Oxycodone in Mice and Rats. PLoS ONE, 2014, 9, e96547.	1.1	45
41	Siteâ€Specific Labeling of Proteins and Peptides with Transâ€cyclooctene Containing Handles Capable of Tetrazine Ligation. Chemical Biology and Drug Design, 2014, 84, 140-147.	1.5	18
42	A combination of metabolic labeling and 2D-DIGE analysis in response to a farnesyltransferase inhibitor facilitates the discovery of new prenylated proteins. Molecular BioSystems, 2014, 10, 1094-1103.	2.9	25
43	Rapid Analysis of Protein Farnesyltransferase Substrate Specificity Using Peptide Libraries and Isoprenoid Diphosphate Analogues. ACS Chemical Biology, 2014, 9, 1726-1735.	1.6	30
44	Engineering Protein Farnesyltransferase for Enzymatic Protein Labeling Applications. Bioconjugate Chemistry, 2014, 25, 1203-1212.	1.8	28
45	The Chaperone Protein SmgGDS Interacts with Small GTPases Entering the Prenylation Pathway by Recognizing the Last Amino Acid in the CAAX Motif. Journal of Biological Chemistry, 2014, 289, 6862-6876.	1.6	36
46	Synthesis of Site-Specific DNAâ€"Protein Conjugates and Their Effects on DNA Replication. ACS Chemical Biology, 2014, 9, 1860-1868.	1.6	48
47	Diazirine-Containing Photoactivatable Isoprenoid: Synthesis and Application in Studies with Isoprenylcysteine Carboxyl Methyltransferase. Journal of Organic Chemistry, 2014, 79, 1971-1978.	1.7	17
48	Evaluation of Prenylated Peptides for Use in Cellular Imaging and Biochemical Analysis. Methods in Molecular Biology, 2014, 1088, 213-223.	0.4	4
49	Synthesis and screening of peptide libraries with free C-termini. Current Topics in Peptide and Protein Research, 2014, 15, 1-23.	1.0	3
50	Enzymatic Labeling of Proteins: Techniques and Approaches. Bioconjugate Chemistry, 2013, 24, 1277-1294.	1.8	215
51	Simultaneous Dual Protein Labeling Using a Triorthogonal Reagent. Journal of the American Chemical Society, 2013, 135, 16388-16396.	6.6	56
52	A Highly Efficient Catalyst for Oxime Ligation and Hydrazoneâ€"Oxime Exchange Suitable for Bioconjugation. Bioconjugate Chemistry, 2013, 24, 333-342.	1.8	100
53	Prenyltransferase inhibitors: treating human ailments from cancer to parasitic infections. MedChemComm, 2013, 4, 476-492.	3.5	54
54	Chemoenzymatic Siteâ€Specific Reversible Immobilization and Labeling of Proteins from Crude Cellular Extract Without Prior Purification Using Oxime and Hydrazine Ligation. Current Protocols in Chemical Biology, 2013, 5, 89-109.	1.7	10

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55	Chemoselective Immobilization of Proteins by Microcontact Printing and Bioâ€orthogonal Click Reactions. ChemBioChem, 2013, 14, 2464-2471.	1.3	28
56	Photoactive Analogs of Farnesyl Diphosphate and Related Isoprenoids: Design and Applications in Studies of Medicinally Important Isoprenoid- Utilizing Enzymes. Current Medicinal Chemistry, 2013, 20, 1585-1594.	1.2	7
57	Synthesis of Peptides Containing C-Terminal Methyl Esters Using Trityl Side-Chain Anchoring: Application to the Synthesis of a-Factor and a-Factor Analogs. Organic Letters, 2012, 14, 5648-5651.	2.4	29
58	Covalent proteinâ€“oligonucleotide conjugates by copper-free click reaction. Bioorganic and Medicinal Chemistry, 2012, 20, 4532-4539.	1.4	37
59	Evaluation of substrate and inhibitor binding to yeast and human isoprenylcysteine carboxyl methyltransferases (Icmts) using biotinylated benzophenone-containing photoaffinity probes. Biochemical and Biophysical Research Communications, 2012, 423, 98-103.	1.0	9
60	Solid-phase synthesis of C-terminal peptide libraries for studying the specificity of enzymatic protein prenylation. Chemical Communications, 2012, 48, 8228.	2.2	16
61	Chemoenzymatic Reversible Immobilization and Labeling of Proteins without Prior Purification. Journal of the American Chemical Society, 2012, 134, 8455-8467.	6.6	86
62	Photochemical Modulation of Rasâ€Mediated Signal Transduction Using Caged Farnesyltransferase Inhibitors: Activation by Oneâ€and Twoâ€Photon Excitation. ChemBioChem, 2012, 13, 1009-1016.	1.3	23
63	An enzyme-coupled continuous fluorescence assay for farnesyl diphosphate synthases. Analytical Biochemistry, 2012, 421, 158-163.	1.1	14
64	Photoaffinity labeling of Ras converting enzyme using peptide substrates that incorporate benzoylphenylalanine (Bpa) residues: Improved labeling and structural implications. Bioorganic and Medicinal Chemistry, 2011, 19, 7559-7569.	1.4	11
65	Evaluation of a cell penetrating prenylated peptide lacking an intrinsic fluorophore via in situ click reaction. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 4998-5001.	1.0	27
66	Synthesis of a-factor peptide from Saccharomyces cerevisiae and photoactive analogues via Fmoc solid phase methodology. Bioorganic and Medicinal Chemistry, 2011, 19, 490-497.	1.4	17
67	Nuclear magnetic resonance-based quantification of organic diphosphates. Analytical Biochemistry, 2011, 408, 316-320.	1.1	11
68	Photoaffinity labeling of Ras converting enzyme 1 (Rce1p) using a benzophenone-containing peptide substrate. Bioorganic and Medicinal Chemistry, 2010, 18, 5675-5684.	1.4	7
69	Investigation of the sequence and length dependence for cell-penetrating prenylated peptides. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 161-163.	1.0	14
70	Onâ€resin conversion of Cys(Acm)â€containing peptides to their corresponding Cys(Scm) congeners. Journal of Peptide Science, 2010, 16, 219-222.	0.8	16
71	Synthesis, Properties, and Applications of Diazotrifluropropanoylâ€Containing Photoactive Analogs of Farnesyl Diphosphate Containing Modified Linkages for Enhanced Stability. Chemical Biology and Drug Design, 2010, 75, 51-67.	1.5	8
72	Enlarging the Scope of Cellâ€Penetrating Prenylated Peptides to Include Farnesylated â€˜CAAXâ€™ Box Sequences and Diverse Cell Types. Chemical Biology and Drug Design, 2010, 76, 107-115.	1.5	9

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73	Evaluation of Alkyneâ€Modified Isoprenoids as Chemical Reporters of Protein Prenylation. Chemical Biology and Drug Design, 2010, 76, 460-471.	1.5	73
74	Prediction and Evaluation of Protein Farnesyltransferase Inhibition by Commercial Drugs. Journal of Medicinal Chemistry, 2010, 53, 2464-2471.	2.9	42
75	Selective labeling of polypeptides using protein farnesyltransferase via rapid oxime ligation. Chemical Communications, 2010, 46, 8998.	2.2	35
76	A Minimalist Substrate for Enzymatic Peptide and Protein Conjugation. ChemBioChem, 2009, 10, 2934-2943.	1.3	27
77	A versatile photoactivatable probe designed to label the diphosphate binding site of farnesyl diphosphate utilizing enzymes. Bioorganic and Medicinal Chemistry, 2009, 17, 4797-4805.	1.4	12
78	Purification of prenylated proteins by affinity chromatography on cyclodextrin-modified agarose. Analytical Biochemistry, 2009, 386, 1-8.	1.1	21
79	Multifunctional Prenylated Peptides for Live Cell Analysis. Journal of the American Chemical Society, 2009, 131, 7293-7303.	6.6	48
80	Caged Protein Prenyltransferase Substrates: Tools for Understanding Protein Prenylation. Chemical Biology and Drug Design, 2008, 72, 171-181.	1.5	21
81	A Photoactive Isoprenoid Diphosphate Analogue Containing a Stable Phosphonate Linkage:Â Synthesis and Biochemical Studies with Prenyltransferases. Journal of Organic Chemistry, 2007, 72, 4587-4595.	1.7	30
82	Transition State Analysis of Model and Enzymatic Prenylation Reactions. Journal of the American Chemical Society, 2007, 129, 5796-5797.	6.6	20
83	Selective Labeling of Proteins by Using Protein Farnesyltransferase. ChemBioChem, 2007, 8, 98-105.	1.3	105
84	A Universal Method for the Preparation of Covalent Proteinâ€“DNA Conjugates for Use in Creating Protein Nanostructures. Angewandte Chemie - International Edition, 2007, 46, 8819-8822.	7.2	103
85	Evaluation of an Alkyne-containing Analogue of Farnesyl Diphosphate as a Dual Substrate for Protein-prenyltransferases. International Journal of Peptide Research and Therapeutics, 2007, 13, 345-354.	0.9	32
86	Site-Specific, Covalent Attachment of Proteins to a Solid Surface. Bioconjugate Chemistry, 2006, 17, 967-974.	1.8	127
87	Synthesis and Reactivity of 6,7-dihydrogeranylazides: Reagents for Primary Azide Incorporation into Peptides and Subsequent Staudinger Ligation. Chemical Biology and Drug Design, 2006, 68, 85-96.	1.5	21
88	Protein-based Artificial Enzymes. , 2006, , 109-132.		0
89	Enzymatic incorporation of orthogonally reactive prenylazide groups into peptides using geranylazide diphosphate via protein farnesyltransferase: Implications for selective protein labeling. Biopolymers, 2005, 80, 164-171.	1.2	31
90	Synthesis of high specific activity 35S-labelled N-methanesulfonyl farnesylcysteine and a photoactive analog. Journal of Labelled Compounds and Radiopharmaceuticals, 2003, 46, 29-54.	0.5	9

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91	Diazotrifluoropropionamido-Containing Prenylcysteines:â€‰ Syntheses and Applications for Studying Isoprenoidâ^'Protein Interactions. Organic Letters, 2003, 5, 609-612.	2.4	21
92	Biochemical and Structural Studies with Prenyl Diphosphate Analogues Provide Insights into Isoprenoid Recognition by Protein Farnesyl Transferase,. Biochemistry, 2003, 42, 3716-3724.	1.2	52
93	Use of Synthetic Isoprenoid Analogues for Understanding Protein Prenyltransferase Mechanism and Structure. Current Topics in Medicinal Chemistry, 2003, 3, 1043-1074.	1.0	30
94	Preparation and Application of G Protein Î³ Subunit-Derived Peptides Incorporating a Photoactive Isoprenoid. Methods in Enzymology, 2002, 344, 245-258.	0.4	3
95	Quantifying Î²-Sheet Stability by Phage Display. Journal of Molecular Biology, 2002, 322, 179-188.	2.0	40
96	Stereochemical Analysis of the Reaction Catalyzed by Human Protein Geranylgeranyl Transferase. Biochemistry, 2001, 40, 3920-3930.	1.2	17
97	A Photoactivatable Prenylated Cysteine Designed to Study Isoprenoid Recognition. Journal of the American Chemical Society, 2001, 123, 4373-4381.	6.6	25
98	Enzymes by Design:â€‰ Chemogenetic Assembly of Transamination Active Sites Containing Lysine Residues for Covalent Catalysis. Bioconjugate Chemistry, 2001, 12, 385-390.	1.8	32
99	Generation of New Enzymes via Covalent Modification of Existing Proteins. Chemical Reviews, 2001, 101, 3081-3112.	23.0	260
100	Synthesis of Farnesyl Diphosphate Analogues Containing Ether-Linked Photoactive Benzophenones and Their Application in Studies of Protein Prenyltransferases. Journal of Organic Chemistry, 2001, 66, 3253-3264.	1.7	58
101	Measurement of the Î±-Secondary Kinetic Isotope Effect for a Prenyltransferase by MALDI Mass Spectrometry. Journal of the American Chemical Society, 1998, 120, 7975-7976.	6.6	26
102	Stereochemical Analysis of the Reaction Catalyzed by Yeast Protein Farnesyltransferase. Journal of Organic Chemistry, 1998, 63, 5298-5299.	1.7	26
103	Catalytic Enantioselective Reductive Amination in a Hostâ^'Guest System Based on a Protein Cavity. Journal of the American Chemical Society, 1998, 120, 1072-1073.	6.6	61
104	Formation of Microscale Gradients of Protein Using Heterobifunctional Photolinkers. Bioconjugate Chemistry, 1997, 8, 658-663.	1.8	86
105	Photoaffinity Labeling of Yeast Farnesyl Protein Transferase and Enzymatic Synthesis of a Ras Protein Incorporating a Photoactive Isoprenoid. Biochemical and Biophysical Research Communications, 1997, 235, 377-382.	1.0	30
106	Synthesis and evaluation of benzophenone-based photoaffinity labeling analogs of prenyl pyrophosphates containing stable amide linkages. Bioorganic and Medicinal Chemistry Letters, 1997, 7, 2125-2130.	1.0	30
107	Synthesis and rapid purification of 32P-labeled photoactive analogs of farnesyl pyrophosphate. Journal of Labelled Compounds and Radiopharmaceuticals, 1997, 39, 139-146.	0.5	7
108	Photoactive Analogs of Farnesyl Pyrophosphate Containing Benzoylbenzoate Esters:Â Synthesis and Application to Photoaffinity Labeling of Yeast Protein Farnesyltransferase. Journal of Organic Chemistry, 1996, 61, 7738-7745.	1.7	51

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109	Enantioselective Reductive Amination of Î±-Keto Acids to Î±-Amino Acids by a Pyridoxamine Cofactor in a Protein Cavity. Journal of the American Chemical Society, 1996, 118, 10702-10706.	6.6	76
110	Analogs of farnesyl pyrophosphate incorporating internal benzoylbenzoate esters: Synthesis, inhibition kinetics and photoinactivation of yeast protein farnesyltransferase. Tetrahedron Letters, 1996, 37, 4845-4848.	0.7	24
111	Farnesyl and geranylgeranyl pyrophosphate analogs incorporating benzoylbenzyl ethers: Synthesis and inhibition of yeast protein farnesyltransferase. Tetrahedron Letters, 1996, 37, 8833-8836.	0.7	34