E James Petersson

List of Publications by Year
in descending order

82 papers	2,731 citations	201674 27 h-index	206112 48 g-index
95 all docs	95 docs citations	95 times ranked	2898 citing authors

#	Article	IF	Citations
1	Rational design of small molecule fluorescent probes for biological applications. Organic and Biomolecular Chemistry, 2020, 18, 5747-5763.	2.8	138
2	Molecular basis for N-terminal acetylation by the heterodimeric NatA complex. Nature Structural and Molecular Biology, 2013, 20, 1098-1105.	8.2	137
3	Thioamides as Fluorescence Quenching Probes: Minimalist Chromophores To Monitor Protein Dynamics. Journal of the American Chemical Society, 2010, 132, 14718-14720.	13.7	136
4	Selective imaging of internalized proteopathic Î±-synuclein seeds in primary neurons reveals mechanistic insight into transmission of synucleinopathies. Journal of Biological Chemistry, 2017, 292, 13482-13497.	3.4	131
5	Biosynthesis and Chemical Applications of Thioamides. ACS Chemical Biology, 2019, 14, 142-163.	3.4	126
6	Scalable thioarylation of unprotected peptides and biomolecules under Ni/photoredox catalysis. Chemical Science, 2018, 9, 336-344.	7.4	123
7	Native Chemical Ligation of Thioamide-Containing Peptides: Development and Application to the Synthesis of LabeledÂÎ±-Synuclein for Misfolding Studies. Journal of the American Chemical Society, 2012, 134, 9172-9182.	13.7	86
8	Efficient Synthesis and In Vivo Incorporation of Acridon-2-ylalanine, a Fluorescent Amino Acid for Lifetime and FÃ¶rster Resonance Energy Transfer/Luminescence Resonance Energy Transfer Studies. Journal of the American Chemical Society, 2013, 135, 18806-18814.	13.7	86
9	Labeling Proteins with Fluorophore/Thioamide FÃ¶rster Resonant Energy Transfer Pairs by Combining Unnatural Amino Acid Mutagenesis and Native Chemical Ligation. Journal of the American Chemical Society, 2013, 135, 6529-6540.	13.7	81
10	Rational Design and Facile Synthesis of a Highly Tunable Quinoline-Based Fluorescent Small-Molecule Scaffold for Live Cell Imaging. Journal of the American Chemical Society, 2018, 140, 9486-9493.	13.7	80
11	Thioamide Quenching of Fluorescent Probes through Photoinduced Electron Transfer: Mechanistic Studies and Applications. Journal of the American Chemical Society, 2013, 135, 18651-18658.	13.7	72
12	Thioamide Substitution Selectively Modulates Proteolysis and Receptor Activity of Therapeutic Peptide Hormones. Journal of the American Chemical Society, 2017, 139, 16688-16695.	13.7	72
13	Minimalist Probes for Studying Protein Dynamics: Thioamide Quenching of Selectively Excitable Fluorescent Amino Acids. Journal of the American Chemical Society, 2012, 134, 6088-6091.	13.7	69
14	Thioamide quenching of intrinsic protein fluorescence. Chemical Communications, 2012, 48, 1550-1552.	4.1	62
15	The effects of thioamide backbone substitution on protein stability: a study in Î±-helical, Î²-sheet, and polyproline II helical contexts. Chemical Science, 2017, 8, 2868-2877.	7.4	61
16	On the use of thioamides as fluorescence quenching probes for tracking protein folding and stability. Physical Chemistry Chemical Physics, 2014, 16, 6827-6837.	2.8	52
17	Thioamide-Based Fluorescent Protease Sensors. Journal of the American Chemical Society, 2014, 136, 2086-2093.	13.7	48
18	Alpha Synuclein Fibrils Contain Multiple Binding Sites for Small Molecules. ACS Chemical Neuroscience, 2018, 9, 2521-2527.	3.5	48

#	Article	IF	Citations
19	Optimization of Second Window Indocyanine Green for Intraoperative Near-Infrared Imaging of Thoracic Malignancy. Journal of the American College of Surgeons, 2019, 228, 188-197.	0.5	45
20	Semi-synthesis of thioamide containing proteins. Organic and Biomolecular Chemistry, 2015, 13, 5074-5081.	2.8	42
21	A â€œClickableâ€•Photoconvertible Small Fluorescent Molecule as a Minimalist Probe for Tracking Individual Biomolecule Complexes. Journal of the American Chemical Society, 2019, 141, 1893-1897.	13.7	40
22	Characterization of the Lipid Binding Properties of Otoferlin Reveals Specific Interactions between PI(4,5)P2 and the C2C and C2F Domains. Biochemistry, 2014, 53, 5023-5033.	2.5	39
23	Comparison of strategies for non-perturbing labeling of Î±-synuclein to study amyloidogenesis. Organic and Biomolecular Chemistry, 2016, 14, 1584-1592.	2.8	37
24	Inteins as Traceless Purification Tags for Unnatural Amino Acid Proteins. Journal of the American Chemical Society, 2015, 137, 1734-1737.	13.7	36
25	Structure and Mechanism of Acetylation by the N-Terminal Dual Enzyme NatA/Naa50 Complex. Structure, 2019, 27, 1057-1070.e4.	3.3	36
26	Multiply labeling proteins for studies of folding and stability. Current Opinion in Chemical Biology, 2015, 28, 123-130.	6.1	34
27	Improving target amino acid selectivity in a permissive aminoacyl tRNA synthetase through counter-selection. Organic and Biomolecular Chemistry, 2017, 15, 3603-3610.	2.8	31
28	Cyclized NDGA modifies dynamic Î±-synuclein monomers preventing aggregation and toxicity. Scientific Reports, 2019, 9, 2937.	3.3	31
29	Expressed Protein Ligation at Methionine: Nâ€Terminal Attachment of Homocysteine, Ligation, and Masking. Angewandte Chemie - International Edition, 2013, 52, 6210-6213.	13.8	30
30	Identification of a nanomolar affinity Î±-synuclein fibril imaging probe by ultra-high throughput in silico screening. Chemical Science, 2020, 11, 12746-12754.	7.4	30
31	Electronic interactions of i, i + 1 dithioamides: increased fluorescence quenching and evidence for n-to-Ï€* interactions. Chemical Communications, 2016, 52, 7798-7801.	4.1	29
32	Alpha-synuclein from patient Lewy bodies exhibits distinct pathological activity that can be propagated in vitro. Acta Neuropathologica Communications, 2021, 9, 188.	5.2	29
33	Systematic Evaluation of Soluble Protein Expression Using a Fluorescent Unnatural Amino Acid Reveals No Reliable Predictors of Tolerability. ACS Chemical Biology, 2018, 13, 2855-2861.	3.4	28
34	Using a FRET Library with Multiple Probe Pairs ToÂDrive Monte Carlo Simulations of Î±-Synuclein. Biophysical Journal, 2018, 114, 53-64.	0.5	26
35	Insights into genome recoding from the mechanism of a classic +1-frameshifting tRNA. Nature Communications, 2021, 12, 328.	12.8	26
36	Chemoenzymatic Semisynthesis of Phosphorylated Î±-Synuclein Enables Identification of a Bidirectional Effect on Fibril Formation. ACS Chemical Biology, 2020, 15, 640-645.	3.4	25

#	Article	IF	Citations
37	Molecular basis for N-terminal alpha-synuclein acetylation by human NatB. ELife, 2020, 9, .	6.0	25
38	Site-Specific Fluorescence Polarization for Studying the Disaggregation of Î±-Synuclein Fibrils by Small Molecules. Biochemistry, 2017, 56, 683-691.	2.5	24
39	Synthesis and characterization of high affinity fluorogenic Î±-synuclein probes. Chemical Communications, 2020, 56, 3567-3570.	4.1	24
40	A Unified De Novo Approach for Predicting the Structures of Ordered and Disordered Proteins. Journal of Physical Chemistry B, 2020, 124, 5538-5548.	2.6	22
41	New strategies for fluorescently labeling proteins in the study of amyloids. Current Opinion in Chemical Biology, 2021, 64, 57-66.	6.1	22
42	Studies of Thioamide Effects on Serine Protease Activity Enable Two-Site Stabilization of Cancer Imaging Peptides. ACS Chemical Biology, 2020, 15, 774-779.	3.4	20
43	The Kinetic and Molecular Basis for the Interaction of LexA and Activated RecA Revealed by a Fluorescent Amino Acid Probe. ACS Chemical Biology, 2020, 15, 1127-1133.	3.4	20
44	Synthesis of thioester peptides for the incorporation of thioamides into proteins by native chemical ligation. Journal of Peptide Science, 2014, 20, 87-91.	1.4	19
45	Multicolor protein FRET with tryptophan, selective coumarin-cysteine labeling, and genetic acridonylalanine encoding. Chemical Communications, 2017, 53, 11072-11075.	4.1	19
46	Thieme Chemistry Journals Awardees â€“ Where Are They Now? Improved Fmoc Deprotection Methods for the Synthesis of Thioamide-Containing Peptides and Proteins. Synlett, 2017, 28, 1789-1794.	1.8	18
47	Efficient, Traceless Semi-Synthesis of Î±-Synuclein Labeled with a FluoroÂphore/Thioamide FRET Pair. Synlett, 2013, 24, 2454-2458.	1.8	17
48	Dithioamide substitutions in proteins: effects on thermostability, peptide binding, and fluorescence quenching in calmodulin. Chemical Communications, 2018, 54, 1766-1769.	4.1	17
49	Minimalist Approaches to Protein Labelling: Getting the Most Fluorescent Bang for Your Steric Buck. Australian Journal of Chemistry, 2014, 67, 686.	0.9	16
50	Effects of Glutamate Arginylation on Î±-Synuclein: Studying an Unusual Post-Translational Modification through Semisynthesis. Journal of the American Chemical Society, 2020, 142, 21786-21798.	13.7	16
51	Genetic encoding of a highly photostable, long lifetime fluorescent amino acid for imaging in mammalian cells. Chemical Science, 2021, 12, 11955-11964.	7.4	16
52	Chemoselective modifications for the traceless ligation of thioamide-containing peptides and proteins. Organic and Biomolecular Chemistry, 2016, 14, 6262-6269.	2.8	15
53	Improving the fluorescent probe acridonylalanine through a combination of theory and experiment. Journal of Physical Organic Chemistry, 2018, 31, e3813.	1.9	15
54	Protein labeling for FRET with methoxycoumarin and acridonylalanine. Methods in Enzymology, 2020, 639, 37-69.	1.0	14

#	Article	IF	Citations
55	Potential Artifacts in Sample Preparation Methods Used for Imaging Amyloid Oligomers and Protofibrils due to Surface-Mediated Fibril Formation. Journal of Physical Chemistry B, 2017, 121, 2534-2542.	2.6	13
56	Fluorescence spectroscopy reveals N-terminal order in fibrillar forms of Î±-synuclein. Chemical Communications, 2018, 54, 833-836.	4.1	13
57	Fluorescent Probes for Studying Thioamide Positional Effects on Proteolysis Reveal Insight into Resistance to Cysteine Proteases. ChemBioChem, 2019, 20, 2059-2062.	2.6	13
58	Rational design of thioamide peptides as selective inhibitors of cysteine protease cathepsin L. Chemical Science, 2021, 12, 10825-10835.	7.4	13
59	Rosetta Machine Learning Models Accurately Classify Positional Effects of Thioamides on Proteolysis. Journal of Physical Chemistry B, 2020, 124, 8032-8041.	2.6	11
60	Evaluation of Diagnostic Accuracy Following the Coadministration of Delta-Aminolevulinic Acid and Second Window Indocyanine Green in Rodent and Human Glioblastomas. Molecular Imaging and Biology, 2020, 22, 1266-1279.	2.6	11
61	An improved fluorescent noncanonical amino acid for measuring conformational distributions using time-resolved transition metal ion FRET. ELife, 2021, 10, .	6.0	11
62	A cryptophane-based â€œturn-onâ€•129Xe NMR biosensor for monitoring calmodulin. Organic and Biomolecular Chemistry, 2017, 15, 8883-8887.	2.8	10
63	Chemoenzymatic Semiâ€synthesis Enables Efficient Production of Isotopically Labeled Î±â€Synuclein with Siteâ€Specific Tyrosine Phosphorylation. ChemBioChem, 2021, 22, 1440-1447.	2.6	10
64	Rosetta custom score functions accurately predict Î”Î”G of mutations at proteinâ€“protein interfaces using machine learning. Chemical Communications, 2020, 56, 6774-6777.	4.1	10
65	Î±-Synuclein arginylation in the human brain. Translational Neurodegeneration, 2022, 11, 20.	8.0	8
66	Effect of Nascent Peptide Steric Bulk on Elongation Kinetics in the Ribosome Exit Tunnel. Journal of Molecular Biology, 2017, 429, 1873-1888.	4.2	7
67	Sideâ€chain thioamides as fluorescence quenching probes. Biopolymers, 2021, 112, e23384.	2.4	7
68	Molecular mechanism of N-terminal acetylation by the ternary NatC complex. Structure, 2021, 29, 1094-1104.e4.	3.3	7
69	Improved Modeling of Thioamide FRET Quenching by Including Conformational Restriction and Coulomb Coupling. Journal of Physical Chemistry B, 2020, 124, 10653-10662.	2.6	5
70	A Bond-Energy/Bond-Order and Populations Relationship. Journal of Chemical Theory and Computation, 2022, 18, 4774-4794.	5.3	5
71	A PARP-1 Feed-Forward Mechanism To Accelerate Î±-Synuclein Toxicity in Parkinsonâ€™s Disease. Biochemistry, 2019, 58, 859-860.	2.5	4
72	Biomolecular simulation based machine learning models accurately predict sites of tolerability to the unnatural amino acid acridonylalanine. Scientific Reports, 2021, 11, 18406.	3.3	4

#	Article	IF	Citations
73	Structural impact of thioamide incorporation into a Î²-hairpin. RSC Chemical Biology, 2022, 3, 582-591.	4.1	4
74	Cysteine-Based Mimic of Arginylation Reproduces Neuroprotective Effects of the Authentic Post-Translational Modification on Î±-Synuclein. Journal of the American Chemical Society, 2022, 144, 7911-7918.	13.7	4
75	Thioamide-Containing Peptides and Proteins. , 2019, , 193-238.		3
76	Quinoline-based fluorescent small molecules for live cell imaging. Methods in Enzymology, 2020, 640, 309-326.	1.0	3
77	Incorporating thioamides into proteins by native chemical ligation. Methods in Enzymology, 2021, 656, 295-339.	1.0	1
78	Synthesis and characterization of fluorescent amino acid dimethylaminoacridonylalanine. Arkivoc, 2022, 2021, 97-109.	0.5	1
79	Somatostatin Receptor as a Molecular Imaging Target in Human and Canine Cushing Disease. World Neurosurgery, 2021, 149, 94-102.	1.3	1
80	Two-for-one designer labels. Nature Chemistry, 2014, 6, 379-381.	13.6	0
81	Editorial overview: Amyloid-inspired synthetic biomolecules. Current Opinion in Chemical Biology, 2021, 64, A3-A6.	6.1	0
82	Selective imaging of internalized proteopathic Î±â€synuclein seeds in primary neurons reveals mechanistic insight into transmission of synucleinopathies. FASEB Journal, 2018, 32, 118.3.	0.5	0