E James Petersson

List of Publications by Year in descending order

82 papers	2,731 citations	230014 27 h-index	232693 48 g-index
95 all docs	95 docs citations	95 times ranked	3198 citing authors

#	Article	IF	Citations
1	Synthesis and characterization of fluorescent amino acid dimethylaminoacridonylalanine. Arkivoc, 2022, 2021, 97-109.	0.3	1
2	Structural impact of thioamide incorporation into a Î²-hairpin. RSC Chemical Biology, 2022, 3, 582-591.	2.0	4
3	Î±-Synuclein arginylation in the human brain. Translational Neurodegeneration, 2022, 11, 20.	3.6	8
4	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.	6.6	4
5	A Bond-Energy/Bond-Order and Populations Relationship. Journal of Chemical Theory and Computation, 2022, 18, 4774-4794.	2.3	5
6	Sideâ€chain thioamides as fluorescence quenching probes. Biopolymers, 2021, 112, e23384.	1.2	7
7	Chemoenzymatic Semiâ€synthesis Enables Efficient Production of Isotopically Labeled Î±â€Synuclein with Siteâ€Specific Tyrosine Phosphorylation. ChemBioChem, 2021, 22, 1440-1447.	1.3	10
8	Incorporating thioamides into proteins by native chemical ligation. Methods in Enzymology, 2021, 656, 295-339.	0.4	1
9	Somatostatin Receptor as a Molecular Imaging Target in Human and Canine Cushing Disease. World Neurosurgery, 2021, 149, 94-102.	0.7	1
10	Molecular mechanism of N-terminal acetylation by the ternary NatC complex. Structure, 2021, 29, 1094-1104.e4.	1.6	7
11	Biomolecular simulation based machine learning models accurately predict sites of tolerability to the unnatural amino acid acridonylalanine. Scientific Reports, 2021, 11, 18406.	1.6	4
12	New strategies for fluorescently labeling proteins in the study of amyloids. Current Opinion in Chemical Biology, 2021, 64, 57-66.	2.8	22
13	Rational design of thioamide peptides as selective inhibitors of cysteine protease cathepsin L. Chemical Science, 2021, 12, 10825-10835.	3.7	13
14	Insights into genome recoding from the mechanism of a classic +1-frameshifting tRNA. Nature Communications, 2021, 12, 328.	5.8	26
15	Genetic encoding of a highly photostable, long lifetime fluorescent amino acid for imaging in mammalian cells. Chemical Science, 2021, 12, 11955-11964.	3.7	16
16	Editorial overview: Amyloid-inspired synthetic biomolecules. Current Opinion in Chemical Biology, 2021, 64, A3-A6.	2.8	0
17	An improved fluorescent noncanonical amino acid for measuring conformational distributions using time-resolved transition metal ion FRET. ELife, 2021, 10, .	2.8	11
18	Alpha-synuclein from patient Lewy bodies exhibits distinct pathological activity that can be propagated in vitro. Acta Neuropathologica Communications, 2021, 9, 188.	2.4	29

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19	Rational design of small molecule fluorescent probes for biological applications. Organic and Biomolecular Chemistry, 2020, 18, 5747-5763.	1.5	138
20	Improved Modeling of Thioamide FRET Quenching by Including Conformational Restriction and Coulomb Coupling. Journal of Physical Chemistry B, 2020, 124, 10653-10662.	1.2	5
21	Rosetta Machine Learning Models Accurately Classify Positional Effects of Thioamides on Proteolysis. Journal of Physical Chemistry B, 2020, 124, 8032-8041.	1.2	11
22	Identification of a nanomolar affinity Î±-synuclein fibril imaging probe by ultra-high throughput in silico screening. Chemical Science, 2020, 11, 12746-12754.	3.7	30
23	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.	6.6	16
24	A Unified De Novo Approach for Predicting the Structures of Ordered and Disordered Proteins. Journal of Physical Chemistry B, 2020, 124, 5538-5548.	1.2	22
25	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.	1.3	11
26	Protein labeling for FRET with methoxycoumarin and acridonylalanine. Methods in Enzymology, 2020, 639, 37-69.	0.4	14
27	Studies of Thioamide Effects on Serine Protease Activity Enable Two-Site Stabilization of Cancer Imaging Peptides. ACS Chemical Biology, 2020, 15, 774-779.	1.6	20
28	Quinoline-based fluorescent small molecules for live cell imaging. Methods in Enzymology, 2020, 640, 309-326.	0.4	3
29	Chemoenzymatic Semisynthesis of Phosphorylated Î±-Synuclein Enables Identification of a Bidirectional Effect on Fibril Formation. ACS Chemical Biology, 2020, 15, 640-645.	1.6	25
30	Synthesis and characterization of high affinity fluorogenic Î±-synuclein probes. Chemical Communications, 2020, 56, 3567-3570.	2.2	24
31	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.	1.6	20
32	Rosetta custom score functions accurately predict Î”Î”G of mutations at proteinâ€“protein interfaces using machine learning. Chemical Communications, 2020, 56, 6774-6777.	2.2	10
33	Molecular basis for N-terminal alpha-synuclein acetylation by human NatB. ELife, 2020, 9, .	2.8	25
34	Biosynthesis and Chemical Applications of Thioamides. ACS Chemical Biology, 2019, 14, 142-163.	1.6	126
35	A PARP-1 Feed-Forward Mechanism To Accelerate Î±-Synuclein Toxicity in Parkinsonâ€™s Disease. Biochemistry, 2019, 58, 859-860.	1.2	4
36	Structure and Mechanism of Acetylation by the N-Terminal Dual Enzyme NatA/Naa50 Complex. Structure, 2019, 27, 1057-1070.e4.	1.6	36

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37	Thioamide-Containing Peptides and Proteins. , 2019, , 193-238.		3
38	Cyclized NDGA modifies dynamic Î±-synuclein monomers preventing aggregation and toxicity. Scientific Reports, 2019, 9, 2937.	1.6	31
39	Fluorescent Probes for Studying Thioamide Positional Effects on Proteolysis Reveal Insight into Resistance to Cysteine Proteases. ChemBioChem, 2019, 20, 2059-2062.	1.3	13
40	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.	0.2	45
41	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.	6.6	40
42	Improving the fluorescent probe acridonylalanine through a combination of theory and experiment. Journal of Physical Organic Chemistry, 2018, 31, e3813.	0.9	15
43	Dithioamide substitutions in proteins: effects on thermostability, peptide binding, and fluorescence quenching in calmodulin. Chemical Communications, 2018, 54, 1766-1769.	2.2	17
44	Using a FRET Library with Multiple Probe Pairs ToÂDrive Monte Carlo Simulations of Î±-Synuclein. Biophysical Journal, 2018, 114, 53-64.	0.2	26
45	Fluorescence spectroscopy reveals N-terminal order in fibrillar forms of Î±-synuclein. Chemical Communications, 2018, 54, 833-836.	2.2	13
46	Scalable thioarylation of unprotected peptides and biomolecules under Ni/photoredox catalysis. Chemical Science, 2018, 9, 336-344.	3.7	123
47	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.	1.6	28
48	Alpha Synuclein Fibrils Contain Multiple Binding Sites for Small Molecules. ACS Chemical Neuroscience, 2018, 9, 2521-2527.	1.7	48
49	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.	6.6	80
50	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.	0.2	0
51	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.	1.2	13
52	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.	3.7	61
53	Improving target amino acid selectivity in a permissive aminoacyl tRNA synthetase through counter-selection. Organic and Biomolecular Chemistry, 2017, 15, 3603-3610.	1.5	31
54	Effect of Nascent Peptide Steric Bulk on Elongation Kinetics in the Ribosome Exit Tunnel. Journal of Molecular Biology, 2017, 429, 1873-1888.	2.0	7

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55	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.	1.6	131
56	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.	1.0	18
57	Site-Specific Fluorescence Polarization for Studying the Disaggregation of Î±-Synuclein Fibrils by Small Molecules. Biochemistry, 2017, 56, 683-691.	1.2	24
58	Multicolor protein FRET with tryptophan, selective coumarin-cysteine labeling, and genetic acridonylalanine encoding. Chemical Communications, 2017, 53, 11072-11075.	2.2	19
59	A cryptophane-based â€œturn-onâ€•129Xe NMR biosensor for monitoring calmodulin. Organic and Biomolecular Chemistry, 2017, 15, 8883-8887.	1.5	10
60	Thioamide Substitution Selectively Modulates Proteolysis and Receptor Activity of Therapeutic Peptide Hormones. Journal of the American Chemical Society, 2017, 139, 16688-16695.	6.6	72
61	Electronic interactions of i, i + 1 dithioamides: increased fluorescence quenching and evidence for n-to-Ï€* interactions. Chemical Communications, 2016, 52, 7798-7801.	2.2	29
62	Chemoselective modifications for the traceless ligation of thioamide-containing peptides and proteins. Organic and Biomolecular Chemistry, 2016, 14, 6262-6269.	1.5	15
63	Comparison of strategies for non-perturbing labeling of Î±-synuclein to study amyloidogenesis. Organic and Biomolecular Chemistry, 2016, 14, 1584-1592.	1.5	37
64	Inteins as Traceless Purification Tags for Unnatural Amino Acid Proteins. Journal of the American Chemical Society, 2015, 137, 1734-1737.	6.6	36
65	Semi-synthesis of thioamide containing proteins. Organic and Biomolecular Chemistry, 2015, 13, 5074-5081.	1.5	42
66	Multiply labeling proteins for studies of folding and stability. Current Opinion in Chemical Biology, 2015, 28, 123-130.	2.8	34
67	Synthesis of thioester peptides for the incorporation of thioamides into proteins by native chemical ligation. Journal of Peptide Science, 2014, 20, 87-91.	0.8	19
68	Thioamide-Based Fluorescent Protease Sensors. Journal of the American Chemical Society, 2014, 136, 2086-2093.	6.6	48
69	Two-for-one designer labels. Nature Chemistry, 2014, 6, 379-381.	6.6	0
70	On the use of thioamides as fluorescence quenching probes for tracking protein folding and stability. Physical Chemistry Chemical Physics, 2014, 16, 6827-6837.	1.3	52
71	Minimalist Approaches to Protein Labelling: Getting the Most Fluorescent Bang for Your Steric Buck. Australian Journal of Chemistry, 2014, 67, 686.	0.5	16
72	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.	1.2	39

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73	Molecular basis for N-terminal acetylation by the heterodimeric NatA complex. Nature Structural and Molecular Biology, 2013, 20, 1098-1105.	3.6	137
74	Thioamide Quenching of Fluorescent Probes through Photoinduced Electron Transfer: Mechanistic Studies and Applications. Journal of the American Chemical Society, 2013, 135, 18651-18658.	6.6	72
75	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.	6.6	86
76	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.	6.6	81
77	Expressed Protein Ligation at Methionine: Nâ€Terminal Attachment of Homocysteine, Ligation, and Masking. Angewandte Chemie - International Edition, 2013, 52, 6210-6213.	7.2	30
78	Efficient, Traceless Semi-Synthesis of Î±-Synuclein Labeled with a FluoroÂphore/Thioamide FRET Pair. Synlett, 2013, 24, 2454-2458.	1.0	17
79	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.	6.6	86
80	Thioamide quenching of intrinsic protein fluorescence. Chemical Communications, 2012, 48, 1550-1552.	2.2	62
81	Minimalist Probes for Studying Protein Dynamics: Thioamide Quenching of Selectively Excitable Fluorescent Amino Acids. Journal of the American Chemical Society, 2012, 134, 6088-6091.	6.6	69
82	Thioamides as Fluorescence Quenching Probes: Minimalist Chromophores To Monitor Protein Dynamics. Journal of the American Chemical Society, 2010, 132, 14718-14720.	6.6	136