

# Bradley L Pentelute

## List of Publications by Year in descending order

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111  
papers

5,962  
citations

108046

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h-index

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g-index

131  
all docs

131  
docs citations

131  
times ranked

7104  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | A Perfluoroaryl-Cysteine S <sub>N</sub> Ar Chemistry Approach to Unprotected Peptide Stapling. <i>Journal of the American Chemical Society</i> , 2013, 135, 5946-5949.  | 6.6  | 389       |
| 2  | Organometallic palladium reagents for cysteine bioconjugation. <i>Nature</i> , 2015, 526, 687-691.  | 13.7 | 377       |
| 3  | Personal neoantigen vaccines induce persistent memory T cell responses and epitope spreading in patients with melanoma. <i>Nature Medicine</i> , 2021, 27, 515-525.   | 15.2 | 248       |
| 4  | Ï€-Clamp-mediated cysteine conjugation. <i>Nature Chemistry</i> , 2016, 8, 120-128.   | 6.6  | 236       |
| 5  | A fully automated flow-based approach for accelerated peptide synthesis. <i>Nature Chemical Biology</i> , 2017, 13, 464-466.  | 3.9  | 235       |
| 6  | Blood-brain-barrier spheroids as an in vitro screening platform for brain-penetrating agents. <i>Nature Communications</i> , 2017, 8, 15623.  | 5.8  | 224       |
| 7  | Atomic structure of anthrax protective antigen pore elucidates toxin translocation. <i>Nature</i> , 2015, 521, 545-549.   | 13.7 | 217       |
| 8  | Synthesis of proteins by automated flow chemistry. <i>Science</i> , 2020, 368, 980-987.   | 6.0  | 191       |
| 9  | Blood-brain-barrier organoids for investigating the permeability of CNS therapeutics. <i>Nature Protocols</i> , 2018, 13, 2827-2843.  | 5.5  | 185       |
| 10 | Arylation Chemistry for Bioconjugation. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 4810-4839.   | 7.2  | 169       |
| 11 | Affinity-based capture and identification of protein effectors of the growth regulator ppGpp. <i>Nature Chemical Biology</i> , 2019, 15, 141-150.   | 3.9  | 159       |
| 12 | Rapid Flow-Based Peptide Synthesis. <i>ChemBioChem</i> , 2014, 15, 713-720.   | 1.3  | 136       |
| 13 | Palladium-Mediated Arylation of Lysine in Unprotected Peptides. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 3177-3181.   | 7.2  | 109       |
| 14 | Nitrogen Arylation for Macrocyclization of Unprotected Peptides. <i>Journal of the American Chemical Society</i> , 2016, 138, 8340-8343.  | 6.6  | 104       |
| 15 | Divergent unprotected peptide macrocyclisation by palladium-mediated cysteine arylation. <i>Chemical Science</i> , 2017, 8, 4257-4263.  | 3.7  | 98        |
| 16 | Palladium Oxidative Addition Complexes for Peptide and Protein Cross-linking. <i>Journal of the American Chemical Society</i> , 2018, 140, 3128-3133.   | 6.6  | 93        |
| 17 | Cholesterol-binding site of the influenza M2 protein in lipid bilayers from solid-state NMR. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 12946-12951. | 3.3  | 85        |
| 18 | Water-Soluble Palladium Reagents for Cysteine <i>S</i> -Arylation under Ambient Aqueous Conditions. <i>Organic Letters</i> , 2017, 19, 4263-4266.   | 2.4  | 76        |

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|----|---|-----|-----------|
| 19 | Delivery of Antibody Mimics into Mammalian Cells via Anthrax Toxin Protective Antigen. <i>ChemBioChem</i> , 2014, 15, 2458-2466.  | 1.3 | 75        |
| 20 | A chemoselective strategy for late-stage functionalization of complex small molecules with polypeptides and proteins. <i>Nature Chemistry</i> , 2019, 11, 78-85.                                      | 6.6 | 75        |
| 21 | Convergent diversity-oriented side-chain macrocyclization scan for unprotected polypeptides. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 566-573.   | 1.5 | 73        |
| 22 | Ultra-large chemical libraries for the discovery of high-affinity peptide binders. <i>Nature Communications</i> , 2020, 11, 3183.   | 5.8 | 73        |
| 23 | Protein Thioester Synthesis Enabled by Sortase. <i>Journal of the American Chemical Society</i> , 2012, 134, 10749-10752.   | 6.6 | 72        |
| 24 | Systematic Investigation of EDC/sNHS-Mediated Bioconjugation Reactions for Carboxylated Peptide Substrates. <i>Bioconjugate Chemistry</i> , 2016, 27, 994-1004.                                       | 1.8 | 72        |
| 25 | <i>De Novo</i> Discovery of High-Affinity Peptide Binders for the SARS-CoV-2 Spike Protein. <i>ACS Central Science</i> , 2021, 7, 156-163.  | 5.3 | 69        |
| 26 | Site-Selective Cysteine-Cyclooctyne Conjugation. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 6459-6463.  | 7.2 | 67        |
| 27 | Risk of rapid evolutionary escape from biomedical interventions targeting SARS-CoV-2 spike protein. <i>PLoS ONE</i> , 2021, 16, e0250780.   | 1.1 | 66        |
| 28 | An Umpolung Approach for the Chemoselective Arylation of Selenocysteine in Unprotected Peptides. <i>Journal of the American Chemical Society</i> , 2015, 137, 9784-9787.                              | 6.6 | 65        |
| 29 | Machine Learning To Predict Cell-Penetrating Peptides for Antisense Delivery. <i>ACS Central Science</i> , 2018, 4, 512-520.  | 5.3 | 65        |
| 30 | Flow-Based Enzymatic Ligation by Sortase...A. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 9203-9208.   | 7.2 | 64        |
| 31 | Perfluoroarene-Based Peptide Macrocycles to Enhance Penetration Across the Blood-Brain Barrier. <i>Journal of the American Chemical Society</i> , 2017, 139, 15628-15631.                             | 6.6 | 60        |
| 32 | Perfluoroaryl Bicyclic Cell-Penetrating Peptides for Delivery of Antisense Oligonucleotides. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4756-4759.                                  | 7.2 | 58        |
| 33 | Enhancement of Peptide Vaccine Immunogenicity by Increasing Lymphatic Drainage and Boosting Serum Stability. <i>Cancer Immunology Research</i> , 2018, 6, 1025-1038.                                  | 1.6 | 58        |
| 34 | In-solution enrichment identifies peptide inhibitors of protein-protein interactions. <i>Nature Chemical Biology</i> , 2019, 15, 410-418.   | 3.9 | 58        |
| 35 | Enzymatic Click-Ligation: Selective Cysteine Modification in Polypeptides Enabled by Promiscuous Glutathione S-transferase. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 14001-14005. | 7.2 | 57        |
| 36 | Atomic structures of closed and open influenza B M2 proton channel reveal the conduction mechanism. <i>Nature Structural and Molecular Biology</i> , 2020, 27, 160-167.                               | 3.6 | 52        |

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|----|---|-----|-----------|
| 37 | Protein-Protein Cross-Coupling via Palladium-Protein Oxidative Addition Complexes from Cysteine Residues. <i>Journal of the American Chemical Society</i> , 2020, 142, 9124-9129.   | 6.6 | 47        |
| 38 | Enzyme-Catalyzed Macrocyclization of Long Unprotected Peptides. <i>Organic Letters</i> , 2014, 16, 3652-3655.   | 2.4 | 39        |
| 39 | Arylierungschemie für die Biokonjugation. <i>Angewandte Chemie</i> , 2019, 131, 4860-4892.  | 1.6 | 39        |
| 40 | Palladium-Mediated Arylation of Lysine in Unprotected Peptides. <i>Angewandte Chemie</i> , 2017, 129, 3225-3229.  | 1.6 | 38        |
| 41 | Rapid Total Synthesis of DARPin pE59 and Barnase. <i>ChemBioChem</i> , 2014, 15, 721-733.   | 1.3 | 36        |
| 42 | Salt Effect Accelerates Site-Selective Cysteine Bioconjugation. <i>ACS Central Science</i> , 2016, 2, 637-646.  | 5.3 | 36        |
| 43 | Xenoprotein engineering via synthetic libraries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E5298-E5306.   | 3.3 | 36        |
| 44 | Deep learning to design nuclear-targeting abiotic miniproteins. <i>Nature Chemistry</i> , 2021, 13, 992-1000.   | 6.6 | 36        |
| 45 | A <i>d</i> -Amino Acid at the N-Terminus of a Protein Abrogates Its Degradation by the N-End Rule Pathway. <i>ACS Central Science</i> , 2015, 1, 423-430.   | 5.3 | 35        |
| 46 | A perfluoroaromatic abiotic analog of H2 relaxin enabled by rapid flow-based peptide synthesis. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 3345-3349.  | 1.5 | 31        |
| 47 | Library Design-Facilitated High-Throughput Sequencing of Synthetic Peptide Libraries. <i>ACS Combinatorial Science</i> , 2017, 19, 694-701.   | 3.8 | 31        |
| 48 | Deep Learning for Prediction and Optimization of Fast-Flow Peptide Synthesis. <i>ACS Central Science</i> , 2020, 6, 2277-2286.  | 5.3 | 31        |
| 49 | <i>d</i> -Amino Acid Scan of Two Small Proteins. <i>Journal of the American Chemical Society</i> , 2016, 138, 12099-12111.  | 6.6 | 30        |
| 50 | Three dimensional structure of the anthrax toxin translocation lethal factor complex by cryo-electron microscopy. <i>Protein Science</i> , 2013, 22, 586-594.   | 3.1 | 29        |
| 51 | Structure of HIV TAR in complex with a Lab-Evolved RRM provides insight into duplex RNA recognition and synthesis of a constrained peptide that impairs transcription. <i>Nucleic Acids Research</i> , 2018, 46, 6401-6415. | 6.5 | 27        |
| 52 | Mutations in <i>pmrB</i> Confer Cross-Resistance between the LptD Inhibitor POL7080 and Colistin in <i>Pseudomonas aeruginosa</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2019, 63, .                              | 1.4 | 26        |
| 53 | Monitoring the Kinetics of the pH-Driven Transition of the Anthrax Toxin Prepore to the Pore by Biolayer Interferometry and Surface Plasmon Resonance. <i>Biochemistry</i> , 2013, 52, 6335-6347.                           | 1.2 | 25        |
| 54 | Fully automated fast-flow synthesis of antisense phosphorodiamidate morpholino oligomers. <i>Nature Communications</i> , 2021, 12, 4396.  | 5.8 | 24        |

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|----|--|-----|-----------|
| 55 | Translocation of Non-Canonical Polypeptides into Cells Using Protective Antigen. <i>Scientific Reports</i> , 2015, 5, 11944.   | 1.6 | 23        |
| 56 | Total synthesis and biochemical characterization of mirror image barnase. <i>Chemical Science</i> , 2015, 6, 2997-3002.  | 3.7 | 23        |
| 57 | Substrate Recognition of MARTX Ras/Rap1-Specific Endopeptidase. <i>Biochemistry</i> , 2017, 56, 2747-2757.   | 1.2 | 22        |
| 58 | Discovery of Nucleic Acid Binding Molecules from Combinatorial Biohybrid Nucleobase Peptide Libraries. <i>Journal of the American Chemical Society</i> , 2020, 142, 19642-19651.               | 6.6 | 22        |
| 59 | Delivery of mirror image polypeptides into cells. <i>Chemical Science</i> , 2015, 6, 648-653.  | 3.7 | 21        |
| 60 | Automated Flow Synthesis of Tumor Neoantigen Peptides for Personalized Immunotherapy. <i>Scientific Reports</i> , 2020, 10, 723.   | 1.6 | 21        |
| 61 | C-Terminal Modification of Fully Unprotected Peptide Hydrazides via in Situ Generation of Isocyanates. <i>Organic Letters</i> , 2016, 18, 1222-1225.   | 2.4 | 20        |
| 62 | Macrocyclization of Unprotected Peptide Isocyanates. <i>Organic Letters</i> , 2016, 18, 1226-1229.   | 2.4 | 20        |
| 63 | A structural and mechanistic study of iClamp-mediated cysteine perfluoroarylation. <i>Scientific Reports</i> , 2017, 7, 7954.  | 1.6 | 20        |
| 64 | Designing Well-Structured Cyclic Pentapeptides Based on Sequence-Structure Relationships. <i>Journal of Physical Chemistry B</i> , 2018, 122, 3908-3919.                                       | 1.2 | 20        |
| 65 | Antibody-Bactericidal Macrocyclic Peptide Conjugates To Target Gram-Negative Bacteria. <i>ChemBioChem</i> , 2018, 19, 2039-2044.   | 1.3 | 20        |
| 66 | A novel, safe, fast and efficient treatment for Her2-positive and negative bladder cancer utilizing an EGF-anthrax toxin chimera. <i>International Journal of Cancer</i> , 2020, 146, 449-460. | 2.3 | 20        |
| 67 | A Platinum(IV) Prodrug-Perfluoroaryl Macrocyclic Peptide Conjugate Enhances Platinum Uptake in the Brain. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 6741-6747.                         | 2.9 | 20        |
| 68 | Anthrax toxins regulate pain signaling and can deliver molecular cargoes into ANTXR2+ DRG sensory neurons. <i>Nature Neuroscience</i> , 2022, 25, 168-179.                                     | 7.1 | 20        |
| 69 | Amide-forming chemical ligation via <i>O</i> -acyl hydroxamic acids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3752-3757.            | 3.3 | 19        |
| 70 | Discovery of a 29-Amino-Acid Reactive Abiotic Peptide for Selective Cysteine Arylation. <i>ACS Chemical Biology</i> , 2018, 13, 527-532.   | 1.6 | 18        |
| 71 | Oligonucleotide Bioconjugation with Bifunctional Palladium Reagents. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12109-12115.   | 7.2 | 18        |
| 72 | Engineering Bioactive Dimeric Transcription Factor Analogs via Palladium Rebound Reagents. <i>Journal of the American Chemical Society</i> , 2021, 143, 11788-11798.                           | 6.6 | 18        |

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|----|---|-----|-----------|
| 73 | Parallel Automated Flow Synthesis of Covalent Protein Complexes That Can Inhibit MYC-Driven Transcription. ACS Central Science, 2021, 7, 1408-1418.                                     | 5.3 | 17        |
| 74 | Deep Learning Enables Discovery of a Short Nuclear Targeting Peptide for Efficient Delivery of Antisense Oligomers. JACS Au, 2021, 1, 2009-2020.  | 3.6 | 17        |
| 75 | Automated Flow Synthesis of Peptide-PNA Conjugates. ACS Central Science, 2022, 8, 205-213.  | 5.3 | 17        |
| 76 | Site-Selective Cysteine-Cyclooctyne Conjugation. Angewandte Chemie, 2018, 130, 6569-6573.   | 1.6 | 16        |
| 77 | Palladium-Protein Oxidative Addition Complexes by Amine-Selective Acylation. Journal of the American Chemical Society, 2020, 142, 21237-21242.  | 6.6 | 16        |
| 78 | Total synthesis of himastatin. Science, 2022, 375, 894-899.   | 6.0 | 16        |
| 79 | Mucosal absorption of therapeutic peptides by harnessing the endogenous sorting of glycosphingolipids. ELife, 2018, 7, .  | 2.8 | 15        |
| 80 | Anthrax Protective Antigen Retargeted with Single-Chain Variable Fragments Delivers Enzymes to Pancreatic Cancer Cells. ChemBioChem, 2020, 21, 2772-2776.                               | 1.3 | 14        |
| 81 | Perfluoroaryl Bicyclic Cell-Penetrating Peptides for Delivery of Antisense Oligonucleotides. Angewandte Chemie, 2018, 130, 4846-4849.   | 1.6 | 13        |
| 82 | Chimeras of Cell-Penetrating Peptides Demonstrate Synergistic Improvement in Antisense Efficacy. Biochemistry, 2019, 58, 3980-3989.   | 1.2 | 12        |
| 83 | Targeting Cancer Gene Dependencies with Anthrax-Mediated Delivery of Peptide Nucleic Acids. ACS Chemical Biology, 2020, 15, 1358-1369.  | 1.6 | 12        |
| 84 | Targeting Glioblastoma Using a Novel Peptide Specific to a Deglycosylated Isoform of Brevican. Advanced Therapeutics, 2021, 4, 2000244.   | 1.6 | 11        |
| 85 | Heterochiral Knottin Protein: Folding and Solution Structure. Biochemistry, 2017, 56, 5720-5725.  | 1.2 | 10        |
| 86 | Automated affinity selection for rapid discovery of peptide binders. Chemical Science, 2021, 12, 10817-10824.   | 3.7 | 10        |
| 87 | Palladium-Mediated Incorporation of Carboranes into Small Molecules, Peptides, and Proteins. Journal of the American Chemical Society, 2022, 144, 7852-7860.                            | 6.6 | 10        |
| 88 | Secondary Amino Alcohols: Traceless Cleavable Linkers for Use in Affinity Capture and Release. Angewandte Chemie - International Edition, 2020, 59, 11566-11572.                        | 7.2 | 9         |
| 89 | Selective N-Arylation of <i>p</i> -Aminophenylalanine in Unprotected Peptides with Organometallic Palladium Reagents. Angewandte Chemie - International Edition, 2021, 60, 16928-16931. | 7.2 | 9         |
| 90 | IgG-Engineered Protective Antigen for Cytosolic Delivery of Proteins into Cancer Cells. ACS Central Science, 2021, 7, 365-378.  | 5.3 | 8         |

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|-----|---|------|-----------|
| 91  | Studies on a landscape of perfluoroaromatic-reactive peptides. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 1862-1868.   | 1.5  | 7         |
| 92  | Conformational Stabilization and Rapid Labeling of a 29-Residue Peptide by a Small Molecule Reaction Partner. <i>Biochemistry</i> , 2019, 58, 1343-1353.  | 1.2  | 7         |
| 93  | Conformational Dynamics in Extended RGD-Containing Peptides. <i>Biomacromolecules</i> , 2020, 21, 2786-2794.  | 2.6  | 7         |
| 94  | Rapid de novo discovery of peptidomimetic affinity reagents for human angiotensin converting enzyme 2. <i>Communications Chemistry</i> , 2022, 5, .   | 2.0  | 7         |
| 95  | Quantifying residue-specific conformational dynamics of a highly reactive 29-mer peptide. <i>Scientific Reports</i> , 2020, 10, 2597.   | 1.6  | 6         |
| 96  | An in vivo selection-derived <sc>d</sc>-peptide for engineering erythrocyte-binding antigens that promote immune tolerance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3  | 6         |
| 97  | Characterization of Novel Piperidine-Based Inhibitor of Cathepsin B-Dependent Bacterial Toxins and Viruses. <i>ACS Infectious Diseases</i> , 2018, 4, 1235-1245.  | 1.8  | 5         |
| 98  | Efficient Flow Synthesis of Human Antimicrobial Peptides. <i>Australian Journal of Chemistry</i> , 2020, 73, 380.   | 0.5  | 5         |
| 99  | Identification of N-Terminally Diversified GLP-1R Agonists Using Saturation Mutagenesis and Chemical Design. <i>ACS Chemical Biology</i> , 2021, 16, 58-66.   | 1.6  | 5         |
| 100 | A reactive peptide interface for site-selective cysteine bioconjugation. <i>Chemical Communications</i> , 2021, 57, 3227-3230.  | 2.2  | 5         |
| 101 | Cell-Penetrating <sc>d</sc>-Peptides Retain Antisense Morpholino Oligomer Delivery Activity. <i>ACS Bio &amp; Med Chem Au</i> , 2022, 2, 150-160.   | 1.7  | 5         |
| 102 | Analyzing Dynamic Protein Complexes Assembled On and Released From Biolayer Interferometry Biosensor Using Mass Spectrometry and Electron Microscopy. <i>Journal of Visualized Experiments</i> , 2018, .                          | 0.2  | 4         |
| 103 | Oligonucleotide Bioconjugation with Bifunctional Palladium Reagents. <i>Angewandte Chemie</i> , 2021, 133, 12216-12222.   | 1.6  | 4         |
| 104 | Palladium Mediated Synthesis of Proteinâ€“Polyarene Conjugates. <i>Journal of the American Chemical Society</i> , 2022, 144, 11706-11712.   | 6.6  | 4         |
| 105 | 12 Pushing the Limits of Solid-Phase Peptide Synthesis with Continuous Flow. , 2018, , .  |      | 3         |
| 106 | Selective Nâ€“Arylation of p â€“Aminophenylalanine in Unprotected Peptides with Organometallic Palladium Reagents. <i>Angewandte Chemie</i> , 2021, 133, 17065-17068.   | 1.6  | 3         |
| 107 | Introduction: Peptide Chemistry. <i>Chemical Reviews</i> , 2020, 120, 3049-3050.  | 23.0 | 2         |
| 108 | Editorial overview: Chemistry for biopolymers to investigate and even move beyond nature. <i>Current Opinion in Chemical Biology</i> , 2016, 34, v-vi.  | 2.8  | 1         |

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|-----|---|-----|-----------|
| 109 | DDIS-36. BTP-7, A NOVEL PEPTIDE FOR THERAPEUTIC TARGETING OF MALIGNANT BRAIN TUMORS. <i>Neuro-Oncology</i> , 2019, 21, vi71-vi71.   | 0.6 | 1         |
| 110 | Secondary Amino Alcohols: Traceless Cleavable Linkers for Use in Affinity Capture and Release. <i>Angewandte Chemie</i> , 2020, 132, 11663-11669.   | 1.6 | 0         |
| 111 | DDRE-47. ASSESSMENT OF BRAIN PENETRANCE, BIODISTRIBUTION, AND EFFICACY OF PLATINUM (IV)-CONJUGATED FLUORINATED MACROCYCLIC CELL-PENETRATING PEPTIDES IN A MURINE GLIOBLASTOMA MODEL. <i>Neuro-Oncology</i> , 2021, 23, vi84-vi85. | 0.6 | 0         |