

Jiri Jiracek

List of Publications by Year in descending order

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102
papers

2,668
citations

201674

27
h-index

206112

48
g-index

105
all docs

105
docs citations

105
times ranked

2693
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | How insulin engages its primary binding site on the insulin receptor. <i>Nature</i> , 2013, 493, 241-245. | 27.8 | 364 |
| 2 | Phosphinic Acid Compounds in Biochemistry, Biology and Medicine. <i>Current Medicinal Chemistry</i> , 2000, 7, 629-647. | 2.4 | 186 |
| 3 | RXP 407, a phosphinic peptide, is a potent inhibitor of angiotensin I converting enzyme able to differentiate between its two active sites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999, 96, 4330-4335. | 7.1 | 168 |
| 4 | Betaine-Homocysteine Methyltransferase. <i>Structure</i> , 2002, 10, 1159-1171. | 3.3 | 113 |
| 5 | Development of Highly Potent and Selective Phosphinic Peptide Inhibitors of Zinc Endopeptidase 24-15 Using Combinatorial Chemistry. <i>Journal of Biological Chemistry</i> , 1995, 270, 21701-21706. | 3.4 | 104 |
| 6 | Development of the First Potent and Selective Inhibitor of the Zinc Endopeptidase Neurolysin Using a Systematic Approach Based on Combinatorial Chemistry of Phosphinic Peptides. <i>Journal of Biological Chemistry</i> , 1996, 271, 19606-19611. | 3.4 | 86 |
| 7 | Protection of the Hydroxyphosphinyl Function of Phosphinic Dipeptides by Adamantyl. Application to the Solid-Phase Synthesis of Phosphinic Peptides. <i>Journal of Organic Chemistry</i> , 1996, 61, 6601-6605. | 3.2 | 78 |
| 8 | Insulin and Insulin-like Growth Factor II Differentially Regulate Endocytic Sorting and Stability of Insulin Receptor Isoform A. <i>Journal of Biological Chemistry</i> , 2012, 287, 11422-11436. | 3.4 | 76 |
| 9 | Changes in the proteomes of the hemocytes and fat bodies of the flesh fly <i>Sarcophaga bullata</i> larvae after infection by <i>Escherichia coli</i> . <i>Proteome Science</i> , 2010, 8, 1. | 1.7 | 71 |
| 10 | Theory of the correlation between capillary and free-flow zone electrophoresis and its use for the conversion of analytical capillary separations to continuous free-flow preparative processes. <i>Journal of Chromatography A</i> , 1998, 796, 211-220. | 3.7 | 51 |
| 11 | Inhibition of Betaine-Homocysteine S-Methyltransferase Causes Hyperhomocysteinemia in Mice. <i>Journal of Nutrition</i> , 2006, 136, 1493-1497. | 2.9 | 51 |
| 12 | Physicochemical characterization of phosphinic pseudopeptides by capillary zone electrophoresis in highly acidic background electrolytes. <i>Electrophoresis</i> , 2003, 24, 774-781. | 2.4 | 49 |
| 13 | Pressure assisted partial filling affinity capillary electrophoresis employed for determination of binding constants of human insulin hexamer complexes with serotonin, dopamine, arginine, and phenol. <i>Analytica Chimica Acta</i> , 2019, 1052, 170-178. | 5.4 | 49 |
| 14 | Implications for the active form of human insulin based on the structural convergence of highly active hormone analogues. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 1966-1970. | 7.1 | 48 |
| 15 | Determination of dissociation constant of phosphinate group in phosphinic pseudopeptides by capillary zone electrophoresis. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2002, 770, 145-154. | 2.3 | 38 |
| 16 | Structural Integrity of the B24 Site in Human Insulin Is Important for Hormone Functionality*. <i>Journal of Biological Chemistry</i> , 2013, 288, 10230-10240. | 3.4 | 38 |
| 17 | Examination of the role of endopeptidase 3.4.24.15 in $\text{A}\beta$ secretion by human transfected cells. <i>British Journal of Pharmacology</i> , 1997, 121, 556-562. | 5.4 | 37 |
| 18 | Effect of a novel selective and potent phosphinic peptide inhibitor of endopeptidase 3.4.24.16 on neurotensin-induced analgesia and neuronal inactivation. <i>British Journal of Pharmacology</i> , 1997, 121, 705-710. | 5.4 | 34 |

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|----|---|-----|-----------|
| 19 | Insight into the Structural and Biological Relevance of the T/R Transition of the N-Terminus of the B-Chain in Human Insulin. <i>Biochemistry</i> , 2014, 53, 3392-3402. | 2.5 | 33 |
| 20 | Dissecting the Catalytic Mechanism of Betaine-Homocysteine S-Methyltransferase by Use of Intrinsic Tryptophan Fluorescence and Site-Directed Mutagenesis. <i>Biochemistry</i> , 2004, 43, 5341-5351. | 2.5 | 31 |
| 21 | Non-equivalent Role of Inter- and Intramolecular Hydrogen Bonds in the Insulin Dimer Interface. <i>Journal of Biological Chemistry</i> , 2011, 286, 36968-36977. | 3.4 | 31 |
| 22 | Insulin Analogues with Modifications at Position B26. Divergence of Binding Affinity and Biological Activity. <i>Biochemistry</i> , 2008, 47, 5858-5868. | 2.5 | 30 |
| 23 | Side reactions during photochemical cleavage of an α -methyl-6-nitroveratryl-based photolabile linker. <i>Journal of Peptide Science</i> , 2000, 6, 355-365. | 1.4 | 29 |
| 24 | Human insulin analogues modified at the B26 site reveal a hormone conformation that is undetected in the receptor complex. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014, 70, 2765-2774. | 2.5 | 29 |
| 25 | Combining Combinatorial Chemistry and Affinity Chromatography. <i>Chemistry and Biology</i> , 2003, 10, 113-122. | 6.0 | 28 |
| 26 | S-Alkylated Homocysteine Derivatives: New Inhibitors of Human Betaine-Homocysteine S-Methyltransferase. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 3982-3989. | 6.4 | 28 |
| 27 | Determination of pKa values of diastereomers of phosphinic pseudopeptides by CZE. <i>Electrophoresis</i> , 2006, 27, 4648-4657. | 2.4 | 28 |
| 28 | Can Arginine Inhibit Insulin Aggregation? A Combined Protein Crystallography, Capillary Electrophoresis, and Molecular Simulation Study. <i>Journal of Physical Chemistry B</i> , 2018, 122, 10069-10076. | 2.6 | 28 |
| 29 | Insulin-like Growth Factors Hybrids as Molecular Probes of Hormone:Receptor Binding Specificity. <i>Biochemistry</i> , 2016, 55, 2903-2913. | 2.5 | 24 |
| 30 | Shortened Insulin Analogues: Marked Changes in Biological Activity Resulting from Replacement of TyrB26 and N-Methylation of Peptide Bonds in the C-Terminus of the B-Chain. <i>Biochemistry</i> , 2004, 43, 2323-2331. | 2.5 | 23 |
| 31 | Dietary intake of S-(\pm -carboxybutyl)-dl-homocysteine induces hyperhomocysteinemia in rats. <i>Nutrition Research</i> , 2010, 30, 492-500. | 2.9 | 23 |
| 32 | The Development of a Versatile Trifunctional Scaffold for Biological Applications. <i>European Journal of Organic Chemistry</i> , 2015, 2015, 3689-3701. | 2.4 | 23 |
| 33 | Structural Perspectives of Insulin Receptor Isoform-Selective Insulin Analogs. <i>Frontiers in Endocrinology</i> , 2017, 8, 167. | 3.5 | 23 |
| 34 | Structural and Functional Study of the GlnB22-Insulin Mutant Responsible for Maturity-Onset Diabetes of the Young. <i>PLoS ONE</i> , 2014, 9, e112883. | 2.5 | 22 |
| 35 | Probing Receptor Specificity by Sampling the Conformational Space of the Insulin-like Growth Factor II C-domain. <i>Journal of Biological Chemistry</i> , 2016, 291, 21234-21245. | 3.4 | 22 |
| 36 | 2-DE analysis of a new human cell line EM-G3 derived from breast cancer progenitor cells and comparison with normal mammary epithelial cells. <i>Proteomics</i> , 2007, 7, 1549-1559. | 2.2 | 21 |

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|----|--|-----|-----------|
| 37 | Mutations at hypothetical binding site 2 in insulin and insulin-like growth factors 1 and 2 result in receptor- and hormone-specific responses. <i>Journal of Biological Chemistry</i> , 2019, 294, 17371-17382. | 3.4 | 21 |
| 38 | Analysis and characterization of phosphinic pseudopeptides by capillary zone electrophoresis. <i>Electrophoresis</i> , 2002, 23, 215-222. | 2.4 | 20 |
| 39 | Quantification of homocysteine-related metabolites and the role of betaine-homocysteine S-methyltransferase in HepG2 cells. <i>Biomedical Chromatography</i> , 2013, 27, 111-121. | 1.7 | 20 |
| 40 | Rational steering of insulin binding specificity by intra-chain chemical crosslinking. <i>Scientific Reports</i> , 2016, 6, 19431. | 3.3 | 20 |
| 41 | S1 pocket fingerprints of human and bacterial methionine aminopeptidases determined using fluorogenic libraries of substrates and phosphorus based inhibitors. <i>Biochimie</i> , 2012, 94, 704-710. | 2.6 | 19 |
| 42 | Computational and structural evidence for neurotransmitter-mediated modulation of the oligomeric states of human insulin in storage granules. <i>Journal of Biological Chemistry</i> , 2017, 292, 8342-8355. | 3.4 | 18 |
| 43 | Insulin-like Growth Factor 1 Analogs Clicked in the C Domain: Chemical Synthesis and Biological Activities. <i>Journal of Medicinal Chemistry</i> , 2017, 60, 10105-10117. | 6.4 | 18 |
| 44 | The development of a new class of inhibitors for betaine-homocysteine S-methyltransferase. <i>European Journal of Medicinal Chemistry</i> , 2013, 65, 256-275. | 5.5 | 17 |
| 45 | Synthesis and Evaluation of a Library of Trifunctional Scaffold-Derived Compounds as Modulators of the Insulin Receptor. <i>ACS Combinatorial Science</i> , 2016, 18, 710-722. | 3.8 | 17 |
| 46 | Optimized syntheses of Fmoc azido amino acids for the preparation of azidopeptides. <i>Journal of Peptide Science</i> , 2017, 23, 202-214. | 1.4 | 17 |
| 47 | Separation of diastereomers of phosphinic pseudopeptides by capillary zone electrophoresis and reverse phase high-performance liquid chromatography. <i>Journal of Separation Science</i> , 2003, 26, 653-660. | 2.5 | 16 |
| 48 | The use of Fmoc-Lys(Pac)-OH and penicillin G acylase in the preparation of novel semisynthetic insulin analogs. <i>Journal of Peptide Science</i> , 2007, 13, 334-341. | 1.4 | 16 |
| 49 | Synthesis of methionine- and norleucine-derived phosphinopeptides. <i>Tetrahedron Letters</i> , 2008, 49, 5629-5631. | 1.4 | 16 |
| 50 | Two-dimensional electrophoretic comparison of metastatic and non-metastatic human breast tumors using in vitro cultured epithelial cells derived from the cancer tissues. <i>BMC Cancer</i> , 2008, 8, 107. | 2.6 | 16 |
| 51 | Converting Insulin-like Growth Factors 1 and 2 into High-Affinity Ligands for Insulin Receptor Isoform A by the Introduction of an Evolutionarily Divergent Mutation. <i>Biochemistry</i> , 2018, 57, 2373-2382. | 2.5 | 16 |
| 52 | Mapping the peptide and protein immune response in the larvae of the fleshfly <i>Sarcophaga bullata</i> . <i>Journal of Peptide Science</i> , 2008, 14, 670-682. | 1.4 | 15 |
| 53 | Efficient synthesis of phosphonodepsipeptides derived from norleucine. <i>Tetrahedron</i> , 2009, 65, 6090-6103. | 1.9 | 14 |
| 54 | Semisynthetic Insulin Analogues Modified in Positions B24, B25 and B29. <i>Biological Chemistry Hoppe-Seyler</i> , 1994, 375, 373-378. | 1.4 | 13 |

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| 55 | Activation of Murine RNase L by Isopolar 2'-Phosphonate Analogues of 2',5'-Oligoadenylates. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 3955-3962. | 6.4 | 13 |
| 56 | A new colorimetric assay for methionyl aminopeptidases: Examination of the binding of a new class of pseudo-peptide analog inhibitors. <i>Analytical Biochemistry</i> , 2006, 357, 43-49. | 2.4 | 13 |
| 57 | A CuAAC-Hydrazone-CuAAC Trifunctional Scaffold for the Solid-Phase Synthesis of Trimodal Compounds: Possibilities and Limitations. <i>Molecules</i> , 2015, 20, 19310-19329. | 3.8 | 13 |
| 58 | Characterization of viral insulins reveals white adipose tissue-specific effects in mice. <i>Molecular Metabolism</i> , 2021, 44, 101121. | 6.5 | 13 |
| 59 | 2-DE analysis of breast cancer cell lines 1833 and 4175 with distinct metastatic organ-specific potentials: comparison with parental cell line MDA-MB-231. <i>Oncology Reports</i> , 2008, 19, 1237-44. | 2.6 | 13 |
| 60 | Evaluation of carrier ampholyte-based capillary electrophoresis for separation of peptides and peptide mimetics. <i>Electrophoresis</i> , 2008, 29, 3759-3767. | 2.4 | 11 |
| 61 | Unusual activity pattern of leucine aminopeptidase inhibitors based on phosphorus containing derivatives of methionine and norleucine. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2011, 26, 155-161. | 5.2 | 11 |
| 62 | Structure-Activity Study of New Inhibitors of Human Betaine-Homocysteine S-Methyltransferase. <i>Journal of Medicinal Chemistry</i> , 2009, 52, 3652-3665. | 6.4 | 10 |
| 63 | Specific potassium ion interactions facilitate homocysteine binding to betaine-homocysteine S-methyltransferase. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014, 82, 2552-2564. | 2.6 | 10 |
| 64 | Synthesis of norleucine-derived phosphonopeptides. <i>Tetrahedron Letters</i> , 2008, 49, 4366-4368. | 1.4 | 9 |
| 65 | 2-DE analysis of breast cancer cell lines 1833 and 4175 with distinct metastatic organ-specific potentials: Comparison with parental cell line MDA-MB-231. <i>Oncology Reports</i> , 0, , . | 2.6 | 9 |
| 66 | Inhibitors of N ¹ -acetyl-l-ornithine deacetylase: synthesis, characterization and analysis of their inhibitory potency. <i>Amino Acids</i> , 2010, 38, 1155-1164. | 2.7 | 8 |
| 67 | A radioligand binding assay for the insulin-like growth factor 2 receptor. <i>PLoS ONE</i> , 2020, 15, e0238393. | 2.5 | 8 |
| 68 | A radioligand receptor binding assay for measuring of insulin secreted by MIN6 cells after stimulation with glucose, arginine, ornithine, dopamine, and serotonin. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 4531-4543. | 3.7 | 8 |
| 69 | Effects of hyperhomocysteinemia and betaine-homocysteine S-methyltransferase inhibition on hepatocyte metabolites and the proteome. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2013, 1834, 1596-1606. | 2.3 | 7 |
| 70 | Tri-Orthogonal Scaffolds for the Solid-Phase Synthesis of Peptides. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 5180-5192. | 2.4 | 7 |
| 71 | Insulin Analogues with Altered Insulin Receptor Isoform Binding Specificities and Enhanced Aggregation Stabilities. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 14848-14859. | 6.4 | 7 |
| 72 | Preparation and characterization of two LysB29 specifically labelled fluorescent derivatives of human insulin. <i>Journal of Peptide Science</i> , 2004, 10, 470-478. | 1.4 | 6 |

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|----|--|-----|-----------|
| 73 | Mono-N-acyl-2,6-diaminopimelic acid derivatives: Analysis by electromigration and spectroscopic methods and examination of enzyme inhibitory activity. <i>Analytical Biochemistry</i> , 2014, 467, 4-13. | 2.4 | 6 |
| 74 | A versatile insulin analog with high potency for both insulin and insulin-like growth factor 1 receptors: Structural implications for receptor binding. <i>Journal of Biological Chemistry</i> , 2018, 293, 16818-16829. | 3.4 | 6 |
| 75 | From venom peptides to a potential diabetes treatment. <i>ELife</i> , 2019, 8, . | 6.0 | 6 |
| 76 | Synthesis of N-Succinyl-L,L-Diaminopimelic Acid Mimetics Via Selective Protection. <i>Protein and Peptide Letters</i> , 2010, 17, 405-409. | 0.9 | 5 |
| 77 | The efficiency of insulin production and its content in insulin-expressing model β -cells correlate with their Zn ²⁺ levels. <i>Open Biology</i> , 2020, 10, 200137. | 3.6 | 5 |
| 78 | Application of Capillary and Free-Flow Zone Electrophoresis for Analysis and Purification of Antimicrobial β -Alanine-Tyrosine from Hemolymph of Fleshfly <i>Neobellieria bullata</i> . <i>Molecules</i> , 2021, 26, 5636. | 3.8 | 5 |
| 79 | Chiral analysis of β -alanine-tyrosine and its derivatives and estimation of binding constants of their complexes with β -hydroxypropyl- β -cyclodextrin by capillary electrophoresis. <i>Journal of Separation Science</i> , 2022, 45, 3328-3338. | 2.5 | 5 |
| 80 | Double-Headed Sulfur-Linked Amino Acids As First Inhibitors for Betaine-Homocysteine <i>S</i> -Methyltransferase 2. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 6822-6831. | 6.4 | 4 |
| 81 | Purification of Penicillin Amidohydrolase, an Enzyme for Semisynthetic Procedures. <i>Collection of Czechoslovak Chemical Communications</i> , 1992, 57, 2187-2191. | 1.0 | 4 |
| 82 | Synthesis of β -carboxyphosphinopeptides derived from norleucine. <i>Amino Acids</i> , 2010, 39, 1265-1280. | 2.7 | 3 |
| 83 | Simplified syntheses of the water-soluble chiral shift reagents Sm-(R)-pdta and Sm-(S)-pdta. <i>Tetrahedron Letters</i> , 2013, 54, 6296-6297. | 1.4 | 3 |
| 84 | Cross-Linking/Mass Spectrometry Uncovers Details of Insulin-Like Growth Factor Interaction With Insect Insulin Binding Protein Imp-L2. <i>Frontiers in Endocrinology</i> , 2019, 10, 695. | 3.5 | 3 |
| 85 | Radiolabeled hormones in insulin research, a minireview. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2020, 63, 576-581. | 1.0 | 3 |
| 86 | Multipodal insulin mimetics built on adamantane or proline scaffolds. <i>Bioorganic Chemistry</i> , 2021, 107, 104548. | 4.1 | 3 |
| 87 | Functional stapled fragments of human preptin of minimised length. <i>Organic and Biomolecular Chemistry</i> , 2022, 20, 2446-2454. | 2.8 | 3 |
| 88 | Probing Tripodal Peptide Scaffolds as Insulin and IGF-1 Receptor Ligands. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 5193-5201. | 2.4 | 2 |
| 89 | Acid-Stable Ester Linkers for the Solid-Phase Synthesis of Immobilized Peptides. <i>ChemPlusChem</i> , 2020, 85, 1297-1306. | 2.8 | 0 |
| 90 | Characterization of Viral Insulin-Like Peptides Reveals Unique White Adipose Tissue Specific Characteristics. <i>Journal of the Endocrine Society</i> , 2021, 5, A437-A438. | 0.2 | 0 |

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| 91 | 336-OR: Mandarin Fish Ranavirus Viral Insulin/IGF-Like Peptide Inhibits Human IGF-1 Receptor. Diabetes, 2021, 70, 336-OR. | 0.6 | 0 |
| 92 | ABEI-labeled 2-5A: A way to chemiluminescent imaging of RNase L binding process. , 2005, , . | | 0 |
| 93 | New inhibitors of human betaine-homocysteine S-methyltransferase. , 2005, , . | | 0 |
| 94 | The role of betaine-homocysteine S-methyltransferase (BHMT) in the regulation of plasma total homocysteine (tHcy). FASEB Journal, 2006, 20, A859. | 0.5 | 0 |
| 95 | Analogues of Orn and DAP as potential inhibitors of bacterial enzymes ArgE and DapE. , 2009, , . | | 0 |
| 96 | Capillary electrophoresis applied to analysis and characterization of mono-N-acyl-2,6-diaminopimelic acid derivatives. , 2011, , . | | 0 |
| 97 | The synthesis of phosphonic acids derived from homocysteine via transesterification reactions. Arkivoc, 2012, 2012, 80-99. | 0.5 | 0 |
| 98 | Isolation of rabbit insulin. Collection of Czechoslovak Chemical Communications, 1990, 55, 1372-1379. | 1.0 | 0 |
| 99 | A radioligand binding assay for the insulin-like growth factor 2 receptor. , 2020, 15, e0238393. | | 0 |
| 100 | A radioligand binding assay for the insulin-like growth factor 2 receptor. , 2020, 15, e0238393. | | 0 |
| 101 | A radioligand binding assay for the insulin-like growth factor 2 receptor. , 2020, 15, e0238393. | | 0 |
| 102 | A radioligand binding assay for the insulin-like growth factor 2 receptor. , 2020, 15, e0238393. | | 0 |