Katalin Prokai-Tatrai

List of Publications by Year
in descending order

		257450	302126
79	1,766	24	39
papers	citations	h-index	g-index

80	80	80	1732
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quinol-based cyclic antioxidant mechanism in estrogen neuroprotection. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11741-11746.	7.1	155
2	Targeting drugs to the brain by redox chemical delivery systems. Medicinal Research Reviews, 2000, 20, 367-416.	10.5	124
3	Hydroxy Metabolites of the Alzheimer's Drug Candidate 3-[(2,4-Dimethoxy)Benzylidene]-Anabaseine Dihydrochloride (GTS-21): Their Molecular Properties, Interactions with Brain Nicotinic Receptors, and Brain Penetration. Molecular Pharmacology, 2004, 65, 56-67.	2.3	106
4	17Î²-Estradiol Eye Drops Protect the Retinal Ganglion Cell Layer and Preserve Visual Function in an in Vivo Model of Glaucoma. Molecular Pharmaceutics, 2013, 10, 3253-3261.	4.6	73
5	Mechanistic investigations on the antioxidant action of a neuroprotective estrogen derivative. Steroids, 2008, 73, 280-288.	1.8	65
6	Brain-Targeted Delivery of a Leucine-enkephalin Analogue by Retrometabolic Designâ€. Journal of Medicinal Chemistry, 1996, 39, 4775-4782.	6.4	63
7	Neuroprotective Effects of a Novel Nonâ€“Receptor-Binding Estrogen Analogue. Stroke, 2002, 33, 2485-2491.	2.0	61
8	Factors That Contribute to the Misidentification of Tyrosine Nitration by Shotgun Proteomics. Molecular and Cellular Proteomics, 2008, 7, 2442-2451.	3.8	55
9	Mechanistic insights into the direct antioxidant effects of estrogens. Drug Development Research, 2005, 66, 118-125.	2.9	53
10	Characterization of 4-Hydroxy-2-nonenal-Modified Peptides by Liquid Chromatographyâ^'Tandem Mass Spectrometry Using Data-Dependent Acquisition: Neutral Loss-Driven MS³ versus Neutral Loss-Driven Electron Capture Dissociation. Analytical Chemistry, 2009, 81, 782-789.	6.5	52
11	The prodrug DHED selectively delivers 17Î²-estradiol to the brain for treating estrogen-responsive disorders. Science Translational Medicine, 2015, 7, 297ra113.	12.4	51
12	Long Range Transmission of Polar Effects in Cholinergic 3-Arylideneanabaseines. Conformations Calculated by Molecular Modelling. Heterocycles, 1993, 35, 171.	0.7	45
13	Metabolism-Based Brain-Targeting System for a Thyrotropin-Releasing Hormone Analogueâ€. Journal of Medicinal Chemistry, 1999, 42, 4563-4571.	6.4	35
14	Synthesis and Biological Evaluation of 17Î²-Alkoxyestra-1,3,5(10)-trienes as Potential Neuroprotectants Against Oxidative Stress. Journal of Medicinal Chemistry, 2001, 44, 110-114.	6.4	35
15	Separation of dansylated 17Î²-estradiol, 17Î±-estradiol, and estrone on a single HPLC column for simultaneous quantitation by LCâ€“MS/MS. Analytical and Bioanalytical Chemistry, 2013, 405, 3399-3406.	3.7	33
16	Centrally Acting and Metabolically Stable Thyrotropin-Releasing Hormone Analogues by Replacement of Histidine with Substituted Pyridinium. Journal of Medicinal Chemistry, 2004, 47, 6025-6033.	6.4	32
17	Application of Screening Experimental Designs to Assess Chromatographic Isotope Effect upon Isotope-Coded Derivatization for Quantitative Liquid Chromatographyâ€“Mass Spectrometry. Analytical Chemistry, 2014, 86, 7033-7040.	6.5	32
18	Selective Chemoprecipitation and Subsequent Release of Tagged Species for the Analysis of Nitropeptides by Liquid Chromatographyâ€“Tandem Mass Spectrometry. Molecular and Cellular Proteomics, 2011, 10, M110.002923.	3.8	31

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19	A comparative evaluation of treatments with 17Î²-estradiol and its brain-selective prodrug in a double-transgenic mouse model of Alzheimer's disease. Hormones and Behavior, 2016, 83, 39-44.	2.1	30
20	Identification of carbonylation sites in apomyoglobin after exposure to 4â€hydroxyâ€2â€nonenal by solidâ€phase enrichment and liquid chromatographyâ€“electrospray ionization tandem mass spectrometry. Journal of Mass Spectrometry, 2010, 45, 398-410.	1.6	29
21	Impact of Metabolism on the Safety of Estrogen Therapy. Annals of the New York Academy of Sciences, 2005, 1052, 243-257.	3.8	26
22	Prodrugs to enhance central nervous system effects of the TRH-like peptide pGlu-Glu-Pro-NH2. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 1011-1014.	2.2	25
23	Exploratory pharmacokinetics and brain distribution study of a neuropeptide FF antagonist by liquid chromatography/atmospheric pressure ionization tandem mass spectrometry. Rapid Communications in Mass Spectrometry, 2000, 14, 2412-2418.	1.5	24
24	Combinatorial Lead Optimization of a Neuropeptide FF Antagonist. Journal of Medicinal Chemistry, 2001, 44, 1623-1626.	6.4	24
25	Design, synthesis, and biological evaluation of novel, centrally-Acting thyrotropin-Releasing hormone analogues. Bioorganic and Medicinal Chemistry Letters, 2002, 12, 2171-2174.	2.2	24
26	QUINOL-BASED METABOLIC CYCLE FOR ESTROGENS IN RAT LIVER MICROSOMES. Drug Metabolism and Disposition, 2003, 31, 701-704.	3.3	24
27	An exploratory investigation of brain-selective estrogen treatment in males using a mouse model of Alzheimer's disease. Hormones and Behavior, 2018, 98, 16-21.	2.1	21
28	Prodrugs of Thyrotropin-Releasing Hormone and Related Peptides as Central Nervous System Agents. Molecules, 2009, 14, 633-654.	3.8	19
29	Capture of the volatile carbonyl metabolite of flecainide on 2,4-dinitrophenylhydrazine cartridge for quantitation by stable-isotope dilution mass spectrometry coupled with chromatography. Journal of Chromatography A, 2012, 1232, 281-287.	3.7	19
30	Treatment with an orally bioavailable prodrug of 17Î²-estradiol alleviates hot flushes without hormonal effects in the periphery. Scientific Reports, 2016, 6, 30721.	3.3	19
31	Improved delivery through biological membranes. 50. Antihypertensive activity of redox derivatives of tryptophan. Journal of Medicinal Chemistry, 1990, 33, 2216-2221.	6.4	18
32	Integration of mass spectrometry into early-phase discovery and development of central nervous system agents. Journal of Mass Spectrometry, 2001, 36, 1211-1219.	1.6	17
33	A Novel Prodrug Approach for Central Nervous System-Selective Estrogen Therapy. Molecules, 2019, 24, 4197.	3.8	17
34	Modifying peptide properties by prodrug design for enhanced transport into the CNS. , 2003, 61, 155-188.		16
35	Quantitative Structure-Activity Relationships Predicting the Antioxidant Potency of 17Î²-Estradiol-Related Polycyclic Phenols to Inhibit Lipid Peroxidation. International Journal of Molecular Sciences, 2013, 14, 1443-1454.	4.1	15
36	Cardiovascular effects of neuropeptide FF antagonists. Peptides, 2006, 27, 1015-1019.	2.4	14

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37	Phenolic Compounds Protect Cultured Hippocampal Neurons against Ethanol-Withdrawal Induced Oxidative Stress. International Journal of Molecular Sciences, 2009, 10, 1773-1787.	4.1	14
38	Simultaneous Measurement of 17Î²-Estradiol, 17Î±-Estradiol and Estrone by GCâ€“Isotope Dilution MSâ€“MS. Chromatographia, 2010, 71, 311-315.	1.3	14
39	Application of a brain-targeting chemical delivery system to 9-amino-1,2,3,4-tetrahydroacridine. Pharmaceutical Research, 1990, 07, 658-664.	3.5	13
40	Redox Derivatives of Tranylcypromine: Syntheses, Properties, and Monoamine Oxidase Inhibitor Activity of Some Chemical Delivery Systems. Journal of Pharmaceutical Sciences, 1991, 80, 255-261.	3.3	13
41	Relative quantitation of protein nitration by liquid chromatographyâ€“mass spectrometry using isotope-coded dimethyl labeling and chemoprecipitation. Journal of Chromatography A, 2012, 1232, 266-275.	3.7	13
42	Comparison of estrogen-derived ortho-quinone and para-quinol concerning induction of oxidative stress. Journal of Steroid Biochemistry and Molecular Biology, 2007, 105, 71-75.	2.5	12
43	Prodrug Design for Brain Delivery of Small- and Medium-Sized Neuropeptides. Methods in Molecular Biology, 2011, 789, 313-336.	0.9	12
44	10Î²,17Î±-Dihydroxyestra-1,4-dien-3-one: A Bioprecursor Prodrug Preferentially Producing 17Î±-Estradiol in the Brain for Targeted Neurotherapy. ACS Chemical Neuroscience, 2018, 9, 2528-2533.	3.5	12
45	â€œAll in the Mindâ€? Brain-Targeting Chemical Delivery System of 17Î²-Estradiol (Estredox) Produces Significant Uterotrophic Side Effect. Pharmaceutica Analytica Acta, 2011, Suppl 7, .	0.2	12
46	Synthesis and behavioral evaluation of a chemical brain-targeting system for a thyrotropin-releasing hormone analogue. European Journal of Medicinal Chemistry, 1998, 33, 879-886.	5.5	11
47	A Facile Microwave-Assisted Synthesis of p-Quinols by Lead(IV) Acetate Oxidation. Letters in Organic Chemistry, 2007, 4, 265-267.	0.5	11
48	Screening of Combinatorial Libraries for Substrate Preference by Mass Spectrometry. Analytical Chemistry, 2005, 77, 698-701.	6.5	10
49	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“6. Molecules, 2020, 25, 119.	3.8	8
50	Retina-Targeted Delivery of 17Î²-Estradiol by the Topically Applied DHED Prodrug. Pharmaceutics, 2020, 12, 456.	4.5	8
51	Fast atom bombardment and tandem mass spectrometry of quaternary pyridinium salt-type tryptophan derivatives. Organic Mass Spectrometry, 1993, 28, 707-715.	1.3	7
52	Synthesis and conformational analysis of a bridged anabasine and related compounds. A nuclear magnetic resonance spectroscopy and molecular modeling study.. Tetrahedron, 1994, 50, 9909-9918.	1.9	7
53	Selective chemoprecipitation to enrich nitropeptides from complex proteomes for mass-spectrometric analysis. Nature Protocols, 2014, 9, 882-895.	12.0	7
54	Brain Delivery of Thyrotropin-Releasing Hormone via a Novel Prodrug Approach. Pharmaceutics, 2019, 11, 349.	4.5	7

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55	17Î²-Estradiol Delivered in Eye Drops: Evidence of Impact on Protein Networks and Associated Biological Processes in the Rat Retina through Quantitative Proteomics. Pharmaceutics, 2020, 12, 101.	4.5	7
56	ANALOGS OF TRYPTOPHAN. Organic Preparations and Procedures International, 1994, 26, 687-690.	1.3	6
57	The Antagonist pGlu-Î²Glu-Pro-NH2 Binds to an Allosteric Site of the Thyrotropin-Releasing Hormone Receptor. Molecules, 2021, 26, 5397.	3.8	6
58	Metabolism-based drug design and drug targeting. Pharmaceutical Science & Technology Today, 1999, 2, 457-462.	0.7	5
59	Exploratory neuropharmacological evaluation of a conformationally constrained thyrotropin-releasing hormone analogue. Brain Research Bulletin, 2007, 73, 103-107.	3.0	5
60	[Glu2]TRH dose-dependently attenuates TRH-evoked analeptic effect in mice. Brain Research Bulletin, 2010, 82, 83-86.	3.0	5
61	Design and Exploratory Neuropharmacological Evaluation of Novel Thyrotropin-Releasing Hormone Analogs and Their Brain-Targeting Bioprecursor Prodrugs. Pharmaceutics, 2013, 5, 318-328.	4.5	5
62	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“5. Molecules, 2019, 24, 2415.	3.8	5
63	Brain-Selective Estrogen Therapy Prevents Androgen Deprivation-Associated Hot Flushes in a Rat Model. Pharmaceuticals, 2020, 13, 119.	3.8	5
64	Topical Estrogen Therapy for Hyperopia Correction in Vivo. , 2020, 61, 55.		5
65	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“7. Molecules, 2020, 25, 2968.	3.8	5
66	Proteomics-Based Retinal Target Engagement Analysis and Retina-Targeted Delivery of 17Î²-Estradiol by the DHED Prodrug for Ocular Neurotherapy in Males. Pharmaceutics, 2021, 13, 1392.	4.5	5
67	Novel Redox Derivatives of Tryptophan. Heterocycles, 1994, 38, 2051.	0.7	5
68	PREPARATION OF REDOX DERIVATIVES OF 3Î±-HYDROXY-5Î±-PREGNANE-11,20-DIONE. Organic Preparations and Procedures International, 1994, 26, 379-382.	1.3	4
69	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“4. Molecules, 2019, 24, 130.	3.8	4
70	17Î²-Estradiol as a Neuroprotective Agent. , 0, , .		3
71	PREPARATION OF O-(3,3,8,10,10-PENTAMETHYL-1,2-DITHIA-5,8-DIAZACYCLODECAN-5-YL)ETHYL O-PIVALOYLOXYMETHYL PHENYLPHOSPHONATE. Organic Preparations and Procedures International, 1998, 30, 485-488.	1.3	2
72	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“2. Molecules, 2018, 23, 65.	3.8	2

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73	Proteomics Complementation of the Rat Uterotrophic Assay for Estrogenic Endocrine Disruptors: A Roadmap of Advancing High Resolution Mass Spectrometry-Based Shotgun Survey to Targeted Biomarker Quantifications. International Journal of Molecular Sciences, 2021, 22, 1686.	4.1	2
74	Non-Feminizing Estrogens Do Not Exhibit Antidepressant-like Activity. Journal of Pharmaceutics and Drug Research, 2016, 1, 1-6.	3.0	2
75	Mass spectrometryâ€based retina proteomics. Mass Spectrometry Reviews, 2023, 42, 1032-1062.	5.4	2
76	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopes-3. Molecules, 2018, 23, 1596.	3.8	1
77	[Î²-Glu2]TRH Is a Functional Antagonist of Thyrotropin-Releasing Hormone (TRH) in the Rodent Brain. International Journal of Molecular Sciences, 2021, 22, 6230.	4.1	1
78	CNS-Selective Estrogen Therapy. Proceedings (mdpi), 2019, 22, .	0.2	0
79	Targets for covalent protein modification by 4â€hydroxynonenal/4â€hydroxyhexenalâ€mediated carbonyl stress in the mitochondria. FASEB Journal, 2009, 23, .	0.5	0