Rudy J Richardson

List of Publications by Year
in descending order

115	3,726	136885	155592
papers	citations	32 h-index	55 g-index

116	116	116	2686
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Common Mechanism of Toxicity: A Case Study of Organophosphorus Pesticides. Toxicological Sciences, 1998, 41, 8-20.	1.4	344
2	Neuropathy Target Esterase Gene Mutations Cause Motor Neuron Disease. American Journal of Human Genetics, 2008, 82, 780-785.	2.6	220
3	Effect of glutathione depletion on tissue deposition of methylmercury in rats. Toxicology and Applied Pharmacology, 1975, 31, 505-519.	1.3	203
4	Assessment of the neurotoxic potential of chlorpyrifos relative to other organophosphorus compounds: A critical review of the literature. Journal of Toxicology and Environmental Health - Part A: Current Issues, 1995, 44, 135-165.	1.1	201
5	Common Mechanism of Toxicity: A Case Study of Organophosphorus Pesticides,. Toxicological Sciences, 1998, 41, 8-20.	1.4	145
6	Neuropathy target esterase (NTE): overview and future. Chemico-Biological Interactions, 2013, 203, 238-244.	1.7	99
7	Neuropathy target esterase impairments cause Oliverâ€“McFarlane and Laurenceâ€“Moon syndromes. Journal of Medical Genetics, 2015, 52, 85-94.	1.5	91
8	Evidence for the existence of neurotoxic esterase in neural and lymphatic tissue of the adult hen. Biochemical Pharmacology, 1982, 31, 1117-1121.	2.0	82
9	SUBCELLULAR DISTRIBUTION OF MARKER ENZYMES AND OF NEUROTOXIC ESTERASE IN ADULT HEN BRAIN. Journal of Neurochemistry, 1979, 32, 607-615.	2.1	76
10	Organophosphorus compound esterase profiles as predictors of therapeutic and toxic effects. Chemico-Biological Interactions, 2013, 203, 231-237.	1.7	66
11	Neurotoxic Esterase (NTE) Assay: Optimized Conditions Based on Detergent-Induced Shifts in the Phenol/4-Aminoantipyrine Chromophore Spectrum*. Journal of Analytical Toxicology, 1991, 15, 86-89.	1.7	58
12	Esterase profiles of organophosphorus compounds inÂvitro predict their behavior inÂvivo. Chemico-Biological Interactions, 2016, 259, 332-342.	1.7	58
13	Synthesis, molecular docking and biological evaluation of N,N-disubstituted 2-aminothiazolines as a new class of butyrylcholinesterase and carboxylesterase inhibitors. Bioorganic and Medicinal Chemistry, 2016, 24, 1050-1062.	1.4	57
14	Biomarkers and Mechanisms of Drug-Induced Vascular Injury in Non-Rodents. Toxicologic Pathology, 2006, 34, 19-26.	0.9	48
15	Lymphocyte and brain neurotoxic esterase: Dose and time dependence of inhibition in the hen examined with three organophosphorus esters. Toxicology and Applied Pharmacology, 1986, 83, 1-9.	1.3	45
16	Chlorpyrifos: Assessment of Potential for Delayed Neurotoxicity by Repeated Dosing in Adult Hens with Monitoring of Brain Acetylcholinesterase, Brain and Lymphocyte Neurotoxic Esterase, and Plasma Butyrylcholinesterase Activities. Fundamental and Applied Toxicology, 1993, 21, 89-96.	1.9	45
17	Conjugates of tacrine and 1,2,4-thiadiazole derivatives as new potential multifunctional agents for Alzheimerâ€™s disease treatment: Synthesis, quantum-chemical characterization, molecular docking, and biological evaluation. Bioorganic Chemistry, 2020, 94, 103387.	2.0	44
18	9-Substituted acridine derivatives as acetylcholinesterase and butyrylcholinesterase inhibitors possessing antioxidant activity for Alzheimer's disease treatment. Bioorganic and Medicinal Chemistry, 2017, 25, 5981-5994.	1.4	43

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19	Biomarkers of drug-induced vascular injury. Toxicology and Applied Pharmacology, 2005, 207, 441-445.	1.3	42
20	Inhibition of hen brain acetylcholinesterase and neurotoxic esterase by chlorpyrifos in vivo and kinetics of inhibition by chlorpyrifos oxon in vitro: Application to assessment of neuropathic risk*. Fundamental and Applied Toxicology, 1993, 20, 273-279.	1.9	41
21	A review of epidemiologic studies of low-level exposures to organophosphorus insecticides in non-occupational populations. Critical Reviews in Toxicology, 2015, 45, 531-641.	1.9	39
22	Neurotoxic esterase: Characterization of the solubilized enzyme and the conditions for its solubilization from chicken brain microsomal membranes with ionic, zwitterionic, or nonionic detergents. Biochemical Pharmacology, 1987, 36, 1393-1399.	2.0	38
23	Synthesis of organophosphates with fluorine-containing leaving groups as serine esterase inhibitors with potential for Alzheimer disease therapeutics. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 5528-5530.	1.0	38
24	The Mipafox-Inhibited Catalytic Domain of Human Neuropathy Target Esterase Ages by Reversible Proton Lossâ€. Biochemistry, 2004, 43, 3716-3722.	1.2	37
25	The effects of occupational exposure to chlorpyrifos on the peripheral nervous system: a prospective cohort study. Occupational and Environmental Medicine, 2004, 61, 201-211.	1.3	37
26	Combined QSAR studies of inhibitor properties ofO-phosphorylated oximes toward serine esterases involved in neurotoxicity, drug metabolism and Alzheimer's disease. SAR and QSAR in Environmental Research, 2012, 23, 627-647.	1.0	37
27	Thrombin preconditioning provides protection in a 6-hydroxydopamine Parkinson's disease model. Neuroscience Letters, 2005, 373, 189-194.	1.0	36
28	Modeling the Tertiary Structure of the Patatin Domain of Neuropathy Target Esterase. Protein Journal, 2007, 26, 165-172.	0.7	36
29	Overview of novel multifunctional agents based on conjugates of Î³-carbolines, carbazoles, tetrahydrocarbazoles, phenothiazines, and aminoadamantanes for treatment of Alzheimer's disease. Chemico-Biological Interactions, 2019, 308, 224-234.	1.7	36
30	Phenylmethanesulfonyl fluoride elicits and intensifies the clinical expression of neuropathic insults. Archives of Toxicology, 1992, 66, 67-72.	1.9	35
31	Identification of Butyrylcholinesterase Adducts after Inhibition with Isomalathion Using Mass Spectrometry: Difference in Mechanism between (1R)- and (1S)-Stereoisomers. Toxicology and Applied Pharmacology, 2001, 176, 73-80.	1.3	35
32	Neuropathy target esterase (NTE/PNPLA6) and organophosphorus compound-induced delayed neurotoxicity (OPIDN). Advances in Neurotoxicology, 2020, 4, 1-78.	0.7	35
33	Inhibition of Acetylcholinesterase by (1S,3S)-Isomalathion Proceeds with Loss of Thiomethyl:Â Kinetic and Mass Spectral Evidence for an Unexpected Primary Leaving Group. Chemical Research in Toxicology, 2000, 13, 1313-1320.	1.7	34
34	Probing the Active Sites of Butyrylcholinesterase and Cholesterol Esterase with Isomalathion:â€‰ Conserved Stereoselective Inactivation of Serine Hydrolases Structurally Related to Acetylcholinesterase. Chemical Research in Toxicology, 2001, 14, 807-813.	1.7	33
35	Relative Inhibitory Potencies of Chlorpyrifos Oxon, Chlorpyrifos Methyl Oxon, and Mipafox for Acetylcholinesterase Versus Neuropathy Target Esterase. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2003, 66, 1145-1157.	1.1	31
36	The Effects of Occupational Exposure to Chlorpyrifos on the Neurologic Examination of Central Nervous System Function: A Prospective Cohort Study. Journal of Occupational and Environmental Medicine, 2004, 46, 367-378.	0.9	30

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37	Dose-Effect Analyses of Occupational Chlorpyrifos Exposure and Peripheral Nerve Electrophysiology. Toxicological Sciences, 2007, 97, 196-204.	1.4	30
38	BIOSENSOR DETECTION OF NEUROPATHY TARGET ESTERASE IN WHOLE BLOOD AS A BIOMARKER OF EXPOSURE TO NEUROPATHIC ORGANOPHOSPHORUS COMPOUNDS. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2003, 66, 599-610.	1.1	29
39	Protease-activated receptor-1 mediates protection elicited by thrombin preconditioning in a rat 6-hydroxydopamine model of Parkinson's disease. Brain Research, 2006, 1116, 177-186.	1.1	29
40	Motor neuron disease due to neuropathy target esterase gene mutation: Clinical features of the index families. Muscle and Nerve, 2011, 43, 19-25.	1.0	29
41	Paraoxonase status and plasma butyrylcholinesterase activity in chlorpyrifos manufacturing workers. Journal of Exposure Science and Environmental Epidemiology, 2010, 20, 79-89.	1.8	28
42	New Multifunctional Agents Based on Conjugates of 4-Amino-2,3-polymethylenequinoline and Butylated Hydroxytoluene for Alzheimerâ€™s Disease Treatment. Molecules, 2020, 25, 5891.	1.7	28
43	Interactions of Organophosphorus Compounds with Neurotoxic Esterase. , 1992, , 299-323.		27
44	Kinetic Evidence for Different Mechanisms of Acetylcholinesterase Inhibition by (1R)- and (1S)-Stereoisomers of Isomalathion. Toxicology and Applied Pharmacology, 1999, 155, 43-53.	1.3	27
45	Nanostructured Biosensor for Measuring Neuropathy Target Esterase Activity. Analytical Chemistry, 2007, 79, 5196-5203.	3.2	27
46	Kinetics and mechanism of inhibition of serine esterases by fluorinated aminophosphonates. Chemico-Biological Interactions, 2010, 187, 177-184.	1.7	26
47	New Hybrids of 4-Amino-2,3-polymethylene-quinoline and p-Tolylsulfonamide as Dual Inhibitors of Acetyl- and Butyrylcholinesterase and Potential Multifunctional Agents for Alzheimerâ€™s Disease Treatment. Molecules, 2020, 25, 3915.	1.7	26
48	Conjugates of methylene blue with Î³-carboline derivatives as new multifunctional agents for the treatment of neurodegenerative diseases. Scientific Reports, 2019, 9, 4873.	1.6	25
49	Relative Potencies of the Four Stereoisomers of Isomalathion for Inhibition of Hen Brain Acetylcholinesterase and Neurotoxic Esterasein Vitro. Toxicology and Applied Pharmacology, 1996, 139, 342-348.	1.3	24
50	Biosensor assay of neuropathy target esterase in whole blood as a new approach to OPIDN risk assessment: review of progress. Human and Experimental Toxicology, 2007, 26, 273-282.	1.1	24
51	Absence of sensory neuropathy among workers with occupational exposure to chlorpyrifos. Muscle and Nerve, 2004, 29, 677-686.	1.0	23
52	Synthesis, molecular docking, and biological activity of 2-vinyl chromones: Toward selective butyrylcholinesterase inhibitors for potential Alzheimer's disease therapeutics. Bioorganic and Medicinal Chemistry, 2018, 26, 4716-4725.	1.4	23
53	Synthesis, molecular docking, and biological evaluation of 3-oxo-2-tolylhydrazinylidene-4,4,4-trifluorobutanoates bearing higher and natural alcohol moieties as new selective carboxylesterase inhibitors. Bioorganic Chemistry, 2019, 91, 103097.	2.0	23
54	Constructs of human neuropathy target esterase catalytic domain containing mutations related to motor neuron disease have altered enzymatic properties. Toxicology Letters, 2010, 196, 67-73.	0.4	22

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55	Amiridine-piperazine hybrids as cholinesterase inhibitors and potential multitarget agents for Alzheimer's disease treatment. Bioorganic Chemistry, 2021, 112, 104974.	2.0	22
56	Fluorinated Î±-aminophosphonatesâ€"a new type of irreversible inhibitors of serine hydrolases. Doklady Biochemistry and Biophysics, 2005, 400, 92-95.	0.3	21
57	Motor neuron disease due to neuropathy target esterase mutation: Enzyme analysis of fibroblasts from human subjects yields insights into pathogenesis. Toxicology Letters, 2010, 199, 1-5.	0.4	21
58	Tethered Lipid Bilayers on Electrolessly Deposited Gold for Bioelectronic Applications. Biomacromolecules, 2006, 7, 3327-3335.	2.6	20
59	Effects of occupational exposure to chlorpyrifos on neuropsychological function: A prospective longitudinal study. NeuroToxicology, 2014, 41, 44-53.	1.4	20
60	Electrophysiologic changes following treatment with organophosphorus-induced delayed neuropathy-producing agents in the adult hen. Toxicology and Applied Pharmacology, 1987, 87, 420-429.	1.3	19
61	Crystal Structure of Patatin-17 in Complex with Aged and Non-Aged Organophosphorus Compounds. PLoS ONE, 2014, 9, e108245.	1.1	19
62	Neurotoxicity produced by intracranial administration of methylmercury in rats. Toxicology and Applied Pharmacology, 1974, 29, 289-300.	1.3	18
63	Influence of lysophospholipid hydrolysis by the catalytic domain of neuropathy target esterase on the fluidity of bilayer lipid membranes. Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 1533-1539.	1.4	18
64	Homology models of mouse and rat estrogen receptor-Î± ligand-binding domain created by in silico mutagenesis of a human template: Molecular docking with 17Î²-estradiol, diethylstilbestrol, and paraben analogs. Computational Toxicology, 2019, 10, 1-16.	1.8	18
65	Time course of electrophysiologic effects induced by DIâ€‹nâ€‹butylâ€‹2,2â€‹dichlorovinyl phosphate (DBCV) in the adult hen. Journal of Toxicology and Environmental Health - Part A: Current Issues, 1988, 23, 283-294.	1.1	17
66	Stereoselective Inactivation of Torpedo californica Acetylcholinesterase by Isomalathion:â€‰ Inhibitory Reactions with (1R)- and (1S)-Isomers Proceed by Different Mechanisms. Chemical Research in Toxicology, 2003, 16, 958-965.	1.7	17
67	Aging of Mipafox-Inhibited Human Acetylcholinesterase Proceeds by Displacement of Both Isopropylamine Groups to Yield a Phosphate Adduct. Chemical Research in Toxicology, 2006, 19, 334-339.	1.7	17
68	Mechanism of Aging of Mipafox-Inhibited Butyrylcholinesterase. Chemical Research in Toxicology, 2007, 20, 504-510.	1.7	17
69	Synthesis, molecular docking, and biological activity of polyfluoroalkyl dihydroazolo[5,1- c][1,2,4]triazines as selective carboxylesterase inhibitors. Bioorganic and Medicinal Chemistry, 2017, 25, 3997-4007.	1.4	17
70	Metabolites of n-Butylparaben and iso-Butylparaben Exhibit Estrogenic Properties in MCF-7 and T47D Human Breast Cancer Cell Lines. Toxicological Sciences, 2018, 164, 50-59.	1.4	17
71	Current status and future directions for diagnostic markers of drug-induced vascular injury. Cancer Biomarkers, 2005, 1, 15-28.	0.8	16
72	The effect of thrombin on a 6-hydroxydopamine model of Parkinson's disease depends on timing. Behavioural Brain Research, 2007, 183, 161-168.	1.2	16

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73	Neuropathy Target Esterase. , 2010, , 1435-1455.		16
74	Evaluation of von Willebrand Factor and von Willebrand Factor Propeptide in Models of Vascular Endothelial Cell Activation, Perturbation, and/or Injury. Toxicologic Pathology, 2014, 42, 672-683.	0.9	16
75	Further studies toward a mouse model for biochemical assessment of neuropathic potential of organophosphorus compounds. Journal of Applied Toxicology, 2014, 34, 1426-1435.	1.4	16
76	Biosensor analysis of blood esterases for organophosphorus compounds exposure assessment: Approaches to simultaneous determination of several esterases. Chemico-Biological Interactions, 2010, 187, 312-317.	1.7	15
77	On-site monitoring of occupational exposure to volatile organic compounds by a portable comprehensive 2-dimensional gas chromatography device. Analytical Methods, 2018, 10, 237-244.	1.3	15
78	Improved Electrochemical Analysis of Neuropathy Target Esterase Activity by a Tyrosinase Carbon Paste Electrode Modified by 1-Methoxyphenazine Methosulfate. Biotechnology Letters, 2005, 27, 1211-1218.	1.1	14
79	Conjugation of Aminoadamantane and Î³-Carboline Pharmacophores Gives Rise to Unexpected Properties of Multifunctional Ligands. Molecules, 2021, 26, 5527.	1.7	14
80	Kinetics of heat inactivation of phenyl valerate hydrolases from hen and rat brain. Biochemical Pharmacology, 1987, 36, 3181-3185.	2.0	13
81	QUANTITATIVE STRUCTURE-ACTIVITY RELATIONSHIPS PREDICT THE DELAYED NEUROTOXICITY POTENTIAL OF A SERIES OFO-ALKYL-O-METHYLCHLOROFORMIMINO PHENYLPHOSPHONATES. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2003, 66, 611-625.	1.1	13
82	Evidence for the Nitric Oxide Pathway as a Potential Mode of Action in Fenoldopam-induced Vascular Injury. Toxicologic Pathology, 2012, 40, 874-886.	0.9	13
83	Novel potent bifunctional carboxylesterase inhibitors based on a polyfluoroalkyl-2-imino-1,3-dione scaffold. European Journal of Medicinal Chemistry, 2021, 218, 113385.	2.6	13
84	Organophosphate Poisoning, Delayed Neurotoxicity. , 2005, , 302-306.		12
85	Chlorpyrifos exposure and biological monitoring among manufacturing workers. Occupational and Environmental Medicine, 2006, 63, 218-220.	1.3	12
86	Solubilization of hen brain neurotoxic esterase in dimethylsulfoxide. Biochemical and Biophysical Research Communications, 1985, 132, 81-87.	1.0	11
87	Anticholinesterase Insecticides. , 0, , 89-127.		11
88	Neuropathy target esterase in mouse whole blood as a biomarker of exposure to neuropathic organophosphorus compounds. Journal of Applied Toxicology, 2016, 36, 1468-1475.	1.4	11
89	Conjugates of Tacrine with Salicylamide as Promising Multitarget Agents for Alzheimer's Disease. ChemMedChem, 2022, 17, e202200080.	1.6	11
90	DFP mononeuropathy: Evidence for a peripheral site of initiation. Brain Research, 1980, 184, 248-251.	1.1	10

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91	Theoretical and experimental study of bi-enzyme electrodes with substrate recycling. Journal of Electroanalytical Chemistry, 2010, 641, 104-110.	1.9	10
92	A layer-by-layer tyrosinase biosensor for assay of carboxylesterase and neuropathy target esterase activities in blood. Analytical Methods, 2013, 5, 3872.	1.3	10
93	Bis-Amiridines as Acetylcholinesterase and Butyrylcholinesterase Inhibitors: N-Functionalization Determines the Multitarget Anti-Alzheimerâ€™s Activity Profile. Molecules, 2022, 27, 1060.	1.7	10
94	Partial characterization of neurotoxic esterase of human placenta. Toxicology Letters, 1983, 15, 13-17.	0.4	8
95	POTENTIATION OF ORGANOPHOSPHORUS COMPOUND-INDUCED DELAYED NEUROTOXICITY (OPIDN) IN THE CENTRAL AND PERIPHERAL NERVOUS SYSTEM OF THE ADULT HEN: DISTRIBUTION OF AXONAL LESIONS. Journal of Toxicology and Environmental Health - Part A: Current Issues, 1997, 51, 571-590.	1.1	8
96	Esterase profile of O-phosphorylated ethyltrifluorolactates in prediction of their therapeutic and toxic effects. Doklady Biochemistry and Biophysics, 2012, 443, 81-85.	0.3	8
97	Mixed Inhibition of Adenosine Deaminase Activity by 1,3-Dinitrobenzene: A Model for Understanding Cell-Selective Neurotoxicity in Chemically-Induced Energy Deprivation Syndromes in Brain. Toxicological Sciences, 2012, 125, 509-521.	1.4	7
98	Neuropathy Target Esterase as a Biomarker and Biosensor of Delayed Neuropathic Agents. , 2015, , 935-952.		7
99	Chlorpyrifos: Assessment of Potential for Delayed Neurotoxicity by Repeated Dosing in Adult Hens with Monitoring of Brain Acetylcholinesterase, Brain and Lymphocyte Neurotoxic Esterase, and Plasma Butyrylcholinesterase Activities. Toxicological Sciences, 1993, 21, 89-96.	1.4	6
100	Synthesis of 2-arylhydrazinylidene-3-oxo-4,4,4-trifluorobutanoic acids as new selective carboxylesterase inhibitors and radical scavengers. Bioorganic and Medicinal Chemistry Letters, 2019, 29, 126716.	1.0	6
101	Diethyl [2,2,2-trifluoro-1-phenylsulfonylamino-1-(trifluoromethyl)ethyl]phosphonate. Acta Crystallographica Section E: Structure Reports Online, 2008, 64, o1425-o1425.	0.2	6
102	Bis-Î³-carbolines as new potential multitarget agents for Alzheimerâ€™s disease. Pure and Applied Chemistry, 2020, 92, 1057-1080.	0.9	6
103	Biomarkers and Biosensors of Delayed Neuropathic Agents. , 2009, , 859-876.		4
104	Inhibition of Neurotoxic Esterasein Vitroby Novel Carbamates. Toxicology and Applied Pharmacology, 1997, 143, 173-178.	1.3	3
105	POTENTIATION OF ORGANOPHOSPHORUS COMPOUNDINDUCED DELAYED NEUROTOXICITY (OPIDN) IN THE CENTRAL AND PERIPHERAL NERVOUS SYSTEM OF THE ADULT HEN: DISTRIBUTION OF AXONAL LESIONS. Journal of Toxicology and Environmental Health - Part A: Current Issues, 1997, 51, 571-590.	1.1	3
106	Kinetics and mechanism of inhibition of serine esterases by fluorinated carbethoxy 1-aminophosphonates. Doklady Biochemistry and Biophysics, 2013, 451, 203-206.	0.3	2
107	Esterase profiles of hexafluoropropan-2-ol-based dialkyl phosphates as a major determinant of their effects in mouse brain in vivo. Russian Chemical Bulletin, 2015, 64, 2203-2209.	0.4	2
108	(O,O-Dibutyl)-O-1-trifluoromethyl-2,2,2-trifluoroethyl phosphate (BFP): A selective inhibitor of mouse plasma carboxylesterase. Phosphorus, Sulfur and Silicon and the Related Elements, 2016, 191, 1589-1590.	0.8	2

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109	Portable multi-dimensional gas chromatography device for rapid field analysis of chemical compounds. , 2017, , .		2
110	Inhibition of Acetylcholinesterases by Stereoisomeric Organophosphorus Compounds Containing Both Thioester andp-Nitrophenyl Leaving Groups. Chemical Research in Toxicology, 2020, 33, 2455-2466.	1.7	2
111	Inhibition of Hen Brain Acetylcholinesterase and Neurotoxic Esterase by Chlorpyrifos in Vivo and Kinetics of Inhibition by Chlorpyrifos Oxon in Vitro: Application to Assessment of Neuropathic Risk. Toxicological Sciences, 1993, 20, 273-279.	1.4	1
112	Quantitative Structure-Activity Relationships Predict the Delayed Neurotoxicity Potential of a Series of O -Alkyl- O -Methylchloroformimino Phenylphosphonates. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2003, 66, 611-625.	1.1	1
113	Toxicant interactions with macromolecular targets. , 2020, , 45-57.		0
114	Neuropathy target esterase as a biomarker and biosensor of delayed neuropathic agents. , 2020, , 1005-1025.		0
115	Isomalathion Stereoisomers. , 1998, , 531-538.		0