

Peter Gemeiner

List of Publications by Year in descending order

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117
papers

3,787
citations

147801

31
h-index

144013

57
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123
all docs

123
docs citations

123
times ranked

4405
citing authors

#	ARTICLE	IF	CITATIONS
1	SPR biosensor chip based on mannan isolated from <i>Candida dubliniensis</i> yeasts applied in immunization effectiveness testing. <i>Sensors and Actuators B: Chemical</i> , 2022, 350, 130883.	7.8	3
2	Lectin-Based Protein Microarray for the Glycan Analysis of Colorectal Cancer Biomarkers: The Insulin-Like Growth Factor System. <i>Methods in Molecular Biology</i> , 2022, 2460, 207-222.	0.9	2
3	Immobilized Cell Physiology Imaging and Stabilization of Enzyme Cascade Reaction Using Recombinant Cells <i>Escherichia coli</i> Entrapped in Polyelectrolyte Complex Beads by Jet Break-Up Encapsulator. <i>Catalysts</i> , 2020, 10, 1288.	3.5	2
4	Simulation-based optimisation of thermodynamic conditions in the ESEM for dynamical in-situ study of spherical polyelectrolyte complex particles in their native state. <i>Ultramicroscopy</i> , 2020, 211, 112954.	1.9	19
5	Progress in biocatalysis with immobilized viable whole cells: systems development, reaction engineering and applications. <i>Biotechnology Letters</i> , 2017, 39, 667-683.	2.2	60
6	Analysis of changes in the glycan composition of serum, cytosol and membrane glycoprotein biomarkers of colorectal cancer using a lectin-based protein microarray. <i>Analytical Methods</i> , 2017, 9, 2660-2666.	2.7	11
7	Progress in emerging techniques for characterization of immobilized viable whole-cell biocatalysts. <i>Chemical Papers</i> , 2017, 71, 2309-2324.	2.2	2
8	Polyelectrolyte Complex Beads by Novel Two-Step Process for Improved Performance of Viable Whole-Cell Baeyer-Villiger Monooxygenase by Immobilization. <i>Catalysts</i> , 2017, 7, 353.	3.5	9
9	A lectin-based cell microarray approach to analyze the mammalian granulosa cell surface glycosylation profile. <i>Glycoconjugate Journal</i> , 2016, 33, 717-724.	2.7	12
10	Lectin-based protein microarray analysis of differences in serum alpha ₂ -macroglobulin glycosylation between patients with colorectal cancer and persons without cancer. <i>Biotechnology and Applied Biochemistry</i> , 2016, 63, 457-464.	3.1	18
11	Baeyer-Villiger oxidations: biotechnological approach. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 6585-6599.	3.6	93
12	Biooxidation of 2-phenylethanol to phenylacetic acid by whole-cell <i>Gluconobacter oxydans</i> biocatalyst immobilized in polyelectrolyte complex capsules. <i>Biocatalysis and Biotransformation</i> , 2015, 33, 111-120.	2.0	8
13	Whole-cell <i>Gluconobacter oxydans</i> biosensor for 2-phenylethanol biooxidation monitoring. <i>Analytica Chimica Acta</i> , 2015, 854, 140-144.	5.4	22
14	Physical and Bioengineering Properties of Polyvinyl Alcohol Lens-Shaped Particles Versus Spherical Polyelectrolyte Complex Microcapsules as Immobilisation Matrices for a Whole-Cell Baeyer-Villiger Monooxygenase. <i>Applied Biochemistry and Biotechnology</i> , 2014, 174, 1834-1849.	2.9	26
15	Perspectives in Glycomics and Lectin Engineering. <i>Methods in Molecular Biology</i> , 2014, 1200, 421-445.	0.9	11
16	Microbial monooxygenase amperometric biosensor for monitoring of Baeyer-Villiger biotransformation. <i>Biosensors and Bioelectronics</i> , 2013, 50, 235-238.	10.1	11
17	Electrochemical lectin based biosensors as a label-free tool in glycomics. <i>Mikrochimica Acta</i> , 2013, 180, 1-13.	5.0	65
18	Ultrasensitive impedimetric lectin based biosensor for glycoproteins containing sialic acid. <i>Mikrochimica Acta</i> , 2013, 180, 151-159.	5.0	43

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19	Electrochemistry of bilirubin oxidase and its use in preparation of a low cost enzymatic biofuel cell based on a renewable composite binder chitosan. <i>Electrochimica Acta</i> , 2013, 87, 366-374.	5.2	37
20	Immobilization in biotechnology and biorecognition: from macro- to nanoscale systems. <i>Chemical Papers</i> , 2012, 66, .	2.2	43
21	Analysis of ethanol in fermentation samples by a robust nanocomposite-based microbial biosensor. <i>Biotechnology Letters</i> , 2012, 34, 1033-1039.	2.2	20
22	Viability of free and encapsulated <i>Escherichia coli</i> overexpressing cyclopentanone monooxygenase monitored during model Baeyer-Villiger biooxidation by confocal laser scanning microscopy. <i>Biotechnology Letters</i> , 2012, 34, 309-314.	2.2	13
23	A hyaluronic acid dispersed carbon nanotube electrode used for a mediatorless NADH sensing and biosensing. <i>Talanta</i> , 2011, 84, 355-361.	5.5	53
24	High performance microbial 3-D bionanocomposite as a bioanode for a mediated biosensor device. <i>Electrochemistry Communications</i> , 2011, 13, 966-968.	4.7	18
25	A biopolymer-based carbon nanotube interface integrated with a redox shuttle and a D-sorbitol dehydrogenase for robust monitoring of D-sorbitol. <i>Mikrochimica Acta</i> , 2011, 175, 21-30.	5.0	12
26	Continuous testing system for Baeyer-Villiger biooxidation using recombinant <i>Escherichia coli</i> expressing cyclohexanone monooxygenase encapsulated in polyelectrolyte complex capsules. <i>Enzyme and Microbial Technology</i> , 2011, 49, 284-288.	3.2	28
27	Binding of d-mannose-containing glycoproteins to d-mannose-specific lectins studied by surface plasmon resonance. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 382, 198-202.	4.7	14
28	Protective effects of manganese(II) chloride on hyaluronan degradation by oxidative system ascorbate plus cupric chloride. <i>Interdisciplinary Toxicology</i> , 2010, 3, 26-34.	1.0	10
29	Encapsulation of recombinant <i>E. coli</i> expressing cyclopentanone monooxygenase in polyelectrolyte complex capsules for Baeyer-Villiger biooxidation of 8-oxabicyclo[3.2.1]oct-6-en-3-one. <i>Biotechnology Letters</i> , 2010, 32, 675-680.	2.2	25
30	Glycan and lectin microarrays for glycomics and medicinal applications. <i>Medicinal Research Reviews</i> , 2010, 30, 394-418.	10.5	94
31	Coencapsulation of Oxygen Carriers and Glucose Oxidase in Polyelectrolyte Complex Capsules for the Enhancement of D-Gluconic Acid and D-Gluconolactone Production. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2010, 38, 90-98.	0.9	8
32	Lectinomics. <i>Biotechnology Advances</i> , 2009, 27, 1-15.	11.7	123
33	High-Molar-Mass Hyaluronan Behavior During Testing Its Radical Scavenging Capacity in Organic and Aqueous Media: Effects of the Presence of Manganese(II) Ions. <i>Chemistry and Biodiversity</i> , 2009, 6, 162-169.	2.1	19
34	Degradation of High-Molar-Mass Hyaluronan by Ascorbate plus Cupric Ions: Effects of D-Penicillamine Addition. <i>Chemistry and Biodiversity</i> , 2009, 6, 389-395.	2.1	14
35	Ethanol <i>Gluconobacter</i> biosensor designed for flow injection analysis. <i>Sensors and Actuators B: Chemical</i> , 2009, 138, 581-586.	7.8	32
36	Multiscale requirements for bioencapsulation in medicine and biotechnology. <i>Biomaterials</i> , 2009, 30, 2559-2570.	11.4	198

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37	Membrane-bound dehydrogenases from <i>Gluconobacter</i> sp.: Interfacial electrochemistry and direct bioelectrocatalysis. <i>Bioelectrochemistry</i> , 2009, 76, 53-62.	4.6	80
38	Off-line FIA monitoring of d-sorbitol consumption during l-sorbose production using a sorbitol biosensor. <i>Analytica Chimica Acta</i> , 2009, 644, 68-71.	5.4	15
39	Lectinomics I. Relevance of exogenous plant lectins in biomedical diagnostics. <i>Biologia (Poland)</i> , 2009, 64, 1-19.	1.5	49
40	A mediatorless electrochemical detection of NADH on a biopolymer dispersed carbon nanotube layer. , 2009, , .		0
41	A filtration probe-free on-line monitoring of glycerol during fermentation by a biosensor device. <i>Enzyme and Microbial Technology</i> , 2008, 42, 434-439.	3.2	9
42	Comparison of different technologies for alginate beads production. <i>Chemical Papers</i> , 2008, 62, .	2.2	113
43	Solution properties of high-molar-mass hyaluronans: the biopolymer degradation by ascorbate. <i>Carbohydrate Research</i> , 2007, 342, 1071-1077.	2.3	28
44	Improvement of the stability of glucose oxidase via encapsulation in sodium alginateâ€“cellulose sulfateâ€“poly(methylene-co-guanidine) capsules. <i>Enzyme and Microbial Technology</i> , 2007, 41, 748-755.	3.2	47
45	In vitro screening of the action of non-steroidal anti-inflammatory drugs on hypochlorous acid-induced hyaluronan degradation. <i>Polymer Degradation and Stability</i> , 2007, 92, 644-652.	5.8	5
46	Oligosaccharides, neoglycoproteins and humanized plastics: their biocatalytic synthesis and possible medical applications. <i>Biotechnology and Applied Biochemistry</i> , 2007, 46, 1.	3.1	3
47	A novel microbial biosensor based on cells of <i>Gluconobacter oxydans</i> for the selective determination of 1,3-propanediol in the presence of glycerol and its application to bioprocess monitoring. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 388, 287-295.	3.7	51
48	Stability of penicillin G acylase modified with various polysaccharides. <i>Enzyme and Microbial Technology</i> , 2006, 39, 579-585.	3.2	31
49	<i>Gluconobacter</i> in biosensors: applications of whole cells and enzymes isolated from <i>gluconobacter</i> and <i>acetobacter</i> to biosensor construction. <i>Biotechnology Letters</i> , 2006, 28, 2003-2010.	2.2	39
50	Hyaluronic acid: a natural biopolymer with a broad range of biomedical and industrial applications. <i>Biotechnology Letters</i> , 2006, 29, 17-25.	2.2	795
51	Development of enzyme flow calorimeter system for monitoring of microbial glycerol conversion. <i>Applied Microbiology and Biotechnology</i> , 2006, 72, 1170-1175.	3.6	9
52	Degradation of high-molecular-weight hyaluronan by hydrogen peroxide in the presence of cupric ions. <i>Carbohydrate Research</i> , 2006, 341, 639-644.	2.3	46
53	Hyaluronan degradation by copper(II) chloride and ascorbate: rotational viscometric, EPR spin-trapping, and MALDIâ€“TOF mass spectrometric investigations. <i>Carbohydrate Research</i> , 2006, 341, 2826-2834.	2.3	33
54	<i>Nocardia tartaricans</i> cells immobilized in sodium alginateâ€“cellulose sulfateâ€“poly(methylene-co-guanidine) capsules: mechanical resistance and operational stability. <i>Journal of Chemical Technology and Biotechnology</i> , 2006, 81, 500-504.	3.2	11

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55	Immobilization of a whole-cell epoxide-hydrolyzing biocatalyst in sodium alginate-cellulose sulfate-poly(methylene-co-guanidine) capsules using a controlled encapsulation process. <i>Enzyme and Microbial Technology</i> , 2005, 36, 118-126.	3.2	63
56	Contribution of Oxidative-Reductive Reactions to High-Molecular-Weight Hyaluronan Catabolism. <i>Chemistry and Biodiversity</i> , 2005, 2, 1242-1245.	2.1	31
57	Biosensors with Immobilised Microbial Cells Using Amperometric and Thermal Detection Principles. , 2005, , 549-566.		10
58	Flow Calorimetry—A Useful Tool for Determination of Immobilized cis-Epoxy succinate Hydrolase Activity from <i>Nocardia tartaricans</i> . <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2004, 32, 77-89.	0.9	8
59	Production of cytidine 5'-monophospho-N-acetyl- β -D-neuraminic acid (CMP-sialic acid) using enzymes or whole cells entrapped in calcium pectate-silica-gel beads. <i>Biotechnology and Applied Biochemistry</i> , 2004, 40, 101.	3.1	27
60	Mannan-penicillin G acylase neoglycoproteins and their potential applications in biotechnology. <i>Biotechnology and Applied Biochemistry</i> , 2004, 39, 285-291.	3.1	6
61	Biospecific immobilization of mannan-penicillin G acylase neoglycoenzyme on Concanavalin A-bead cellulose. <i>Journal of Biotechnology</i> , 2004, 110, 11-19.	3.8	31
62	Improved selectivity of microbial biosensor using membrane coating. Application to the analysis of ethanol during fermentation. <i>Biosensors and Bioelectronics</i> , 2003, 18, 1125-1134.	10.1	84
63	PROPERTIES OF HYDROGEL MATERIALS USED FOR ENTRAPMENT OF MICROBIAL CELLS IN PRODUCTION OF FERMENTED BEVERAGES. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2002, 30, 199-218.	0.9	26
64	Stabilization of ferrocene leakage by physical retention in a cellulose acetate membrane. The fructose biosensor. <i>Bioelectrochemistry</i> , 2002, 55, 149-151.	4.6	27
65	Indirect evidence of direct electron communication between the active site of galactose oxidase and a graphite electrode. <i>Bioelectrochemistry</i> , 2002, 56, 23-25.	4.6	18
66	Monitoring of ethanol during fermentation using a microbial biosensor with enhanced selectivity. <i>Bioelectrochemistry</i> , 2002, 56, 127-129.	4.6	47
67	Title is missing!. <i>Biotechnology Letters</i> , 2002, 24, 925-930.	2.2	8
68	Production of non-alcoholic beer using free and immobilized cells of <i>Saccharomyces cerevisiae</i> deficient in the tricarboxylic acid cycle. <i>Biotechnology and Applied Biochemistry</i> , 2002, 35, 133.	3.1	24
69	Investigation of immobilized glucoamylase kinetics by flow calorimetry. <i>Thermochemica Acta</i> , 2001, 378, 79-85.	2.7	11
70	Monitoring of dihydroxyacetone production during oxidation of glycerol by immobilized <i>Gluconobacter oxydans</i> cells with an enzyme biosensor. <i>Enzyme and Microbial Technology</i> , 2001, 28, 383-388.	3.2	55
71	Fructose biosensor based on d-fructose dehydrogenase immobilised on a ferrocene-embedded cellulose acetate membrane. <i>Analytica Chimica Acta</i> , 2001, 439, 39-46.	5.4	61
72	Batch and continuous mead production with pectate immobilised, ethanol-tolerant yeast. <i>Biotechnology Letters</i> , 2001, 23, 977-982.	2.2	42

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73	Stability enhancement of Escherichia coli penicillin G acylase by glycosylation with yeast mannan. <i>Biotechnology and Applied Biochemistry</i> , 2001, 34, 127.	3.1	36
74	New approaches for verification of kinetic parameters of immobilized concanavalin A: Invertase preparations investigated by flow microcalorimetry. <i>Biotechnology and Bioengineering</i> , 2000, 49, 26-35.	3.3	11
75	Determination of total sugars in lignocellulose hydrolysate by a mediated Gluconobacter oxydans biosensor. <i>Analytica Chimica Acta</i> , 2000, 420, 1-7.	5.4	50
76	Novel glucose non-interference biosensor for lactose detection based on galactose oxidase- α -peroxidase with and without co-immobilised β -galactosidase. <i>Analyst, The</i> , 2000, 125, 1285-1289.	3.5	49
77	Investigation of Catalytic Properties of Immobilized Enzymes and Cells by Flow Microcalorimetry. <i>Advances in Biochemical Engineering/Biotechnology</i> , 1999, 64, 69-99.	1.1	5
78	Title is missing!. <i>Biotechnology Letters</i> , 1998, 20, 841-845.	2.2	31
79	Continuous secondary fermentation using immobilised yeast. <i>Biotechnology Letters</i> , 1998, 20, 1041-1045.	2.2	20
80	Enzyme flow microcalorimetry—a useful tool for screening of immobilized penicillin G acylase. <i>Journal of Chemical Technology and Biotechnology</i> , 1998, 73, 31-36.	3.2	3
81	Reactors for continuous primary beer fermentation using immobilised yeast. <i>Biotechnology Letters</i> , 1997, 11, 261-264.	0.5	32
82	Influence of immobilization on the thermal inactivation of yeast invertase. <i>Enzyme and Microbial Technology</i> , 1997, 21, 196-202.	3.2	25
83	Production of plumbagin by cell suspension cultures of <i>Drosophyllum lusitanicum</i> Link.. <i>Journal of Biotechnology</i> , 1996, 49, 153-161.	3.8	28
84	New Approaches for the Verification of Kinetic Parameters of Immobilized Concanavalin A: Invertase Preparations Investigated by Flow Microcalorimetry. <i>Annals of the New York Academy of Sciences</i> , 1996, 799, 102-107.	3.8	0
85	Screening and design of immobilized biocatalysts through the kinetic characterization by flow microcalorimetry. <i>Progress in Biotechnology</i> , 1996, , 320-327.	0.2	0
86	Screening and Design of Immobilized Biocatalysts by Means of Kinetic Characterization on Enzyme Thermistor/Thermal Assay Probe. <i>Advances in Molecular and Cell Biology</i> , 1996, , 411-419.	0.1	1
87	The chemical/osmotic conditions for growth and plumbagin accumulation of <i>Drosophyllum lusitanicum</i> Link. suspension cultures. <i>Biotechnology Letters</i> , 1996, 18, 1453-1458.	2.2	5
88	New approaches for verification of kinetic parameters of immobilized concanavalin A: Invertase preparations investigated by flow microcalorimetry. <i>Biotechnology and Bioengineering</i> , 1996, 49, 26-35.	3.3	11
89	Screening of Concanavalin A-Bead Cellulose Conjugates by an Enzyme Thermistor Using Immobilized Invertase as the Reporter Catalyst. <i>Annals of the New York Academy of Sciences</i> , 1995, 750, 441-443.	3.8	1
90	Screening of concanavalin A-bead cellulose conjugates using an enzyme thermistor with immobilized invertase as the reporter catalyst. <i>Biotechnology and Bioengineering</i> , 1994, 43, 286-292.	3.3	26

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91	Natural and Synthetic Carriers Suitable for Immobilization of Viable Cells, Active Organelles, and Molecules. , 1994, , 1-128.		7
92	Biochemical engineering of biocatalysts immobilized on cellulosic materials. Enzyme and Microbial Technology, 1993, 15, 551-566.	3.2	48
93	Preparation and molecular characterization of carboxymethylglucan fractions. Carbohydrate Polymers, 1991, 15, 79-87.	10.2	9
94	Polyelectrolyte complex capsules as a material for enzyme immobilization. Applied Biochemistry and Biotechnology, 1991, 30, 313-324.	2.9	20
95	Competitive elution of lactate dehydrogenase from Cibacron Blueâ€”bead cellulose with Cibacron Blueâ€”dextran. Journal of Chromatography A, 1990, 510, 197-204.	3.7	9
96	Application of the enzyme thermistor to the direct estimation of intrinsic kinetics using the saccharose-immobilized invertase system. Enzyme and Microbial Technology, 1990, 12, 830-835.	3.2	40
97	Study of porous cellulose beads as a dye-ligand matrix. Effect of protein admixtures and concentration of immobilized dye in the quantitative analysis of lactate dehydrogenase: Cibacron blue interaction. Collection of Czechoslovak Chemical Communications, 1990, 55, 581-586.	1.0	4
98	Partition mechanism of adsorption and the absence of displacement phenomena in the zonal analytical chromatography of proteins on bead 2-hydroxy-3-phenoxypropyl-cellulose. Collection of Czechoslovak Chemical Communications, 1989, 54, 2375-2385.	1.0	6
99	Study of porous cellulose beads as an affinity adsorbent via quantitative measurements of interactions of lactate dehydrogenase with immobilized anthraquinone dyes. Enzyme and Microbial Technology, 1988, 10, 568-573.	3.2	13
100	Study of porous cellulose beads as an enzyme carrier via simple mathematical models for the hydrolysis of saccharose using immobilized invertase reactors. Enzyme and Microbial Technology, 1988, 10, 306-311.	3.2	16
101	Size-exclusion effect of a substrate upon kinetics of trypsin immobilized on porous bead cellulose. 2. Influence of hydrodynamic diameter of substrate. Enzyme and Microbial Technology, 1987, 9, 44-46.	3.2	7
102	Size-exclusion effect of a substrate upon kinetics of trypsin immobilized on porous bead cellulose. 1. Influence of distribution coefficient of a substrate. Enzyme and Microbial Technology, 1986, 8, 109-114.	3.2	16
103	Effect of the concentration of 5,5'-dithiobis(2-nitrobenzoic acid) on parameters of the kinetics of its chemisorption on thiol derivatives of cellulose. Collection of Czechoslovak Chemical Communications, 1986, 51, 545-552.	1.0	6
104	Novel mathematical model for description of non-cooperative chemisorption kinetics. Die Makromolekulare Chemie, 1985, 9, 229-232.	1.1	6
105	Inhibition of lactate dehydrogenase ex rabbit muscle by Cibacron Blue 3G-A bound to water-soluble hydroxyethylcellulose. Collection of Czechoslovak Chemical Communications, 1985, 50, 1335-1340.	1.0	6
106	Antrachinon-triazine derivatives of polysaccharides, affinity of bovine heart lactate dehydrogenase to Cibacron Blue derivatives of water-soluble dextran fractions and hydroxyethyl-starches. Collection of Czechoslovak Chemical Communications, 1984, 49, 549-554.	1.0	3
107	The preparation of O-(formylmethyl)cellulose. Collection of Czechoslovak Chemical Communications, 1984, 49, 821-827.	1.0	9
108	Direct spectrophotometric determination of proteins immobilized on bead cellulose and dissolved in cadoxene. Applied Biochemistry and Biotechnology, 1983, 8, 381-393.	2.9	7

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109	Phenylhydrazonopropanedinitrile derivatives of cellulose: New type of sorbent for thiol compounds. <i>Reactive Polymers, Ion Exchangers, Sorbents</i> , 1983, 1, 91-100.	0.0	2
110	Thiol and disulphide derivatives of cellulose. <i>Collection of Czechoslovak Chemical Communications</i> , 1983, 48, 267-278.	1.0	11
111	Stepwise immobilization of proteins via their glycosylation. <i>Journal of Proteomics</i> , 1981, 4, 309-319.	2.4	20
112	Thiol derivatives of cellulose as supports for the immobilization of non-thiol enzymes. <i>Collection of Czechoslovak Chemical Communications</i> , 1981, 46, 1693-1700.	1.0	8
113	Antraquinone-triazine derivatives of polysaccharides. Relation between structure and affinity to lactate dehydrogenase. <i>Collection of Czechoslovak Chemical Communications</i> , 1981, 46, 419-427.	1.0	15
114	Preparation of p-aminobenzyl cellulose and its utilization for immobilization of enzymes. <i>Collection of Czechoslovak Chemical Communications</i> , 1980, 45, 2847-2854.	1.0	9
115	Affinity chromatography of rat liver lactate dehydrogenase on the Remazol derivative of bead cellulose. <i>Journal of Chromatography A</i> , 1980, 194, 95-99.	3.7	24
116	Two-Step covalent immobilization of enzymes as a way for study of effects influencing catalytic activity. <i>Journal of Solid-Phase Biochemistry</i> , 1980, 5, 197-209.	0.5	6
117	Isothiocyanates as a new type of ligand for covalent chromatography of thiol proteins. <i>Journal of Solid-Phase Biochemistry</i> , 1977, 2, 289-294.	0.5	2