Arvind M Kayastha

List of Publications by Year
in descending order

122 papers	2,972 citations	147801 31 h-index	214800 47 g-index
126 all docs	126 docs citations	126 times ranked	2985 citing authors

#	Article	IF	Citations
1	Immobilization of soybean (Glycine max) urease on alginate and chitosan beads showing improved stability: Analytical applications. Journal of Molecular Catalysis B: Enzymatic, 2009, 58, 138-145.	1.8	105
2	Immobilization of soybean (Glycine max) Î±-amylase onto Chitosan and Amberlite MB-150 beads: Optimization and characterization. Journal of Molecular Catalysis B: Enzymatic, 2011, 69, 8-14.	1.8	97
3	Thermal, Chemical and pH Induced Denaturation of a Multimeric Î²-Galactosidase Reveals Multiple Unfolding Pathways. PLoS ONE, 2012, 7, e50380.	2.5	95
4	Optimal immobilization of Î²-galactosidase from Pea (PsBGAL) onto Sephadex and chitosan beads using response surface methodology and its applications. Bioresource Technology, 2009, 100, 2667-2675.	9.6	88
5	Purification and characterization of urease from dehusked pigeonpea (Cajanus cajan L.) seeds. Phytochemistry, 2002, 61, 513-521.	2.9	80
6	Immobilization of Î±-amylase from mung beans (Vigna radiata) on Amberlite MB 150 and chitosan beads: A comparative study. Journal of Molecular Catalysis B: Enzymatic, 2007, 49, 69-74.	1.8	80
7	Immobilization of Î²-Galactosidase onto Functionalized Graphene Nano-sheets Using Response Surface Methodology and Its Analytical Applications. PLoS ONE, 2012, 7, e40708.	2.5	79
8	Cicer Î±-galactosidase immobilization onto functionalized graphene nanosheets using response surface method and its applications. Food Chemistry, 2014, 142, 430-438.	8.2	79
9	Characterization of gelatin-immobilized pigeonpea urease and preparation of a new urea biosensor. Biotechnology and Applied Biochemistry, 2001, 34, 55.	3.1	76
10	Covalent immobilization of Î²-amylase onto functionalized molybdenum sulfide nanosheets, its kinetics and stability studies: A gateway to boost enzyme application. Chemical Engineering Journal, 2017, 328, 215-227.	12.7	74
11	Substitution of glutamic acid 109 by aspartic acid alters the substrate specificity and catalytic activity of the .beta.-subunit in the tryptophan synthase bienzyme complex from Salmonella typhimurium. Biochemistry, 1992, 31, 1180-1190.	2.5	70
12	Covalent immobilization of peanut Î²-amylase for producing industrial nano-biocatalysts: A comparative study of kinetics, stability and reusability of the immobilized enzyme. Food Chemistry, 2018, 245, 488-499.	8.2	69
13	Optimisation of immobilisation conditions for chick pea Î²-galactosidase (CpGAL) to alkylamine glass using response surface methodology and its applications in lactose hydrolysis. Food Chemistry, 2012, 134, 1650-1657.	8.2	55
14	Stabilization of Î²-Galactosidase (from Peas) by Immobilization onto Amberlite MB-150 Beads and Its Application in Lactose Hydrolysis. Journal of Agricultural and Food Chemistry, 2009, 57, 682-688.	5.2	54
15	Pigeonpea (Cajanus cajan L.) Urease Immobilized on Glutaraldehyde-Activated Chitosan Beads and Its Analytical Applications. Applied Biochemistry and Biotechnology, 2001, 96, 041-054.	2.9	51
16	Immobilization of Urease from Pigeonpea (<i>Cajanus cajan</i> L.) in Polyacrylamide Gels and Calcium Alginate Beads. Biotechnology and Applied Biochemistry, 1998, 27, 25-29.	3.1	50
17	Immobilization of pigeonpea (<i>Cajanus cajan</i>) urease on DEAEâ€cellulose paper strips for urea estimation. Biotechnology and Applied Biochemistry, 2004, 39, 323-327.	3.1	49
18	Plant Pyruvate Kinase. Biologia Plantarum, 2002, 45, 1-10.	1.9	48

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19	Î±-Amylase from germinating soybean (Glycine max) seeds â€“ Purification, characterization and sequential similarity of conserved and catalytic amino acid residues. Phytochemistry, 2010, 71, 1657-1666.	2.9	46
20	Lactose nano-probe optimized using response surface methodology. Biosensors and Bioelectronics, 2009, 25, 784-790.	10.1	45
21	Solid state potentiometric sensor for the estimation of tributyrin and urea. Sensors and Actuators B: Chemical, 2005, 107, 418-423.	7.8	44
22	Î±-Amylase from mung beans (Vigna radiata) â€“ Correlation of biochemical properties and tertiary structure by homology modelling. Phytochemistry, 2007, 68, 1623-1631.	2.9	39
23	Functionalized Graphene Sheets As Immobilization Matrix for Fenugreek Î²-Amylase: Enzyme Kinetics and Stability Studies. PLoS ONE, 2014, 9, e113408.	2.5	39
24	Î±-Amylase from wheat (Triticum aestivum) seeds: Its purification, biochemical attributes and active site studies. Food Chemistry, 2014, 162, 1-9.	8.2	38
25	Amperometric enzyme sensor for glucose based on graphite paste-modified electrodes. Applied Biochemistry and Biotechnology, 1992, 33, 139-144.	2.9	37
26	Improved stability of urease upon coupling to alkylamine and arylamine glass and its analytical use. Journal of Molecular Catalysis B: Enzymatic, 2006, 38, 104-112.	1.8	37
27	Optimal immobilization of Î±-amylase from wheat (Triticum aestivum) onto DEAE-cellulose using response surface methodology and its characterization. Journal of Molecular Catalysis B: Enzymatic, 2014, 104, 75-81.	1.8	37
28	Discovery and profiling of small RNAs from Puccinia triticina by deep sequencing and identification of their potential targets in wheat. Functional and Integrative Genomics, 2019, 19, 391-407.	3.5	37
29	Significance of sulfhydryl groups in the activity of urease from pigeonpea (Cajanus cajan L.) seeds. Plant Science, 2000, 159, 149-158.	3.6	35
30	QPRTase modified N-doped carbon quantum dots: A fluorescent bioprobe for selective detection of neurotoxin quinolinic acid in human serum. Biosensors and Bioelectronics, 2018, 101, 103-109.	10.1	35
31	A simple laboratory experiment for teaching enzyme immobilization with urease and its application in blood urea estimation. Biochemical Education, 1999, 27, 114-117.	0.1	34
32	Immobilization of fenugreek Î²-amylase onto functionalized graphene quantum dots (GQDs) using Box-Behnken design: Its biochemical, thermodynamic and kinetic studies. International Journal of Biological Macromolecules, 2020, 144, 170-182.	7.5	34
33	Antibacterial potential of Î³-linolenic acid from Fischerella sp. colonizing Neem tree bark. World Journal of Microbiology and Biotechnology, 2006, 22, 443-448.	3.6	31
34	Purification and Characterization of Î±-Galactosidase from White Chickpea (Cicer arietinum). Journal of Agricultural and Food Chemistry, 2012, 60, 3253-3259.	5.2	31
35	Enzymatic hydrolysis of native granular starches by a new Î²-amylase from peanut (Arachis hypogaea). Food Chemistry, 2019, 276, 583-590.	8.2	31
36	A Î²-galactosidase from chick pea (Cicer arietinum) seeds: Its purification, biochemical properties and industrial applications. Food Chemistry, 2012, 134, 1113-1122.	8.2	30

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37	Enzyme entrapped inside the reversed micelle in the fabrication of a new urea sensor. , 1997, 54, 329-332.		29
38	Purification and characterization of a thermostable Î²-Galactosidase from kidney beans (Phaseolus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.5	29
39	Immobilization of Urease from Pigeonpea (Cajanus cajan) on Agar Tablets and Its Application in Urea Assay. Applied Biochemistry and Biotechnology, 2007, 142, 291-297.	2.9	28
40	Î³-Amylase from Starchless Seeds of Trigonella Foenum-Graecum and Its Localization in Germinating Seeds. PLoS ONE, 2014, 9, e88697.	2.5	28
41	Molecular cloning and characterization of Brugia malayi hexokinase. Parasitology International, 2008, 57, 354-361.	1.3	27
42	Cicer Î±-galactosidase immobilization onto chitosan and Amberlite MB-150: optimization, characterization, and its applications. Carbohydrate Research, 2012, 358, 61-66.	2.3	27
43	Î±-Amylase immobilization onto functionalized graphene nanosheets as scaffolds: Its characterization, kinetics and potential applications in starch based industries. Biochemistry and Biophysics Reports, 2015, 3, 18-25.	1.3	27
44	Inhibition studies of soybean (<i>Glycine max</i>) urease with heavy metals, sodium salts of mineral acids, boric acid, and boronic acids. Journal of Enzyme Inhibition and Medicinal Chemistry, 2010, 25, 646-652.	5.2	26
45	Immobilisation of Fenugreek Î²-amylase on chitosan/PVP blend and chitosan coated PVC beads: A comparative study. Food Chemistry, 2015, 172, 844-851.	8.2	24
46	Metabolic profiling of human lung injury by 1H high-resolution nuclear magnetic resonance spectroscopy of blood serum. Metabolomics, 2015, 11, 166-174.	3.0	24
47	Ultra fast magic angle spinning solid â€“ state NMR spectroscopy of intact bone. Magnetic Resonance in Chemistry, 2016, 54, 132-135.	1.9	24
48	Title is missing!. World Journal of Microbiology and Biotechnology, 1998, 14, 927-929.	3.6	22
49	Boric acid and boronic acids inhibition of pigeonpea urease. Journal of Enzyme Inhibition and Medicinal Chemistry, 2006, 21, 467-470.	5.2	22
50	Conformational stability and integrity of Î±-amylase from mung beans: Evidence of kinetic intermediate in GdmCl-induced unfolding. Biophysical Chemistry, 2008, 137, 95-99.	2.8	22
51	Partially reduced graphene oxideâ€“gold nanorods composite based bioelectrode of improved sensing performance. Talanta, 2015, 144, 745-754.	5.5	22
52	The effect of calcium binding on the unfolding barrier: A kinetic study on homologous Î±-amylases. Biophysical Chemistry, 2010, 151, 54-60.	2.8	21
53	Plant Î²-Galactosidases: Physiological Significance and Recent Advances in Technological Applications. Journal of Plant Biochemistry and Biotechnology, 2010, 19, 9-20.	1.7	20
54	The Role of Peroxidase and Polyphenol Oxidase Isozymes in Wheat Resistance to Alternaria triticina. Biologia Plantarum, 2000, 43, 559-562.	1.9	18

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55	A Î²-Galactosidase from Pea Seeds (<i>Ps</i>BGAL): Purification, Stabilization, Catalytic Energetics, Conformational Heterogeneity, and Its Significance. Journal of Agricultural and Food Chemistry, 2009, 57, 7086-7096.	5.2	18
56	Carbon nanotubes molybdenum disulfide 3D nanocomposite as novel nanoscaffolds to immobilize Lens culinaris Î²-galactosidase (Lsbgal): Robust stability, reusability, and effective bioconversion of lactose in whey. Food Chemistry, 2019, 297, 125005.	8.2	18
57	Guanidine hydrochloride and urea-induced unfolding of Brugia malayi hexokinase. European Biophysics Journal, 2010, 39, 289-297.	2.2	17
58	A novel application of Cicer Î±-galactosidase in reduction of raffinose family oligosaccharides in soybean flour. Journal of Plant Biochemistry and Biotechnology, 2013, 22, 353-356.	1.7	17
59	Heat, Acid and Chemically Induced Unfolding Pathways, Conformational Stability and Structure-Function Relationship in Wheat Î±-Amylase. PLoS ONE, 2015, 10, e0129203.	2.5	17
60	Thermal Stability of Phaseolus vulgaris Leucoagglutinin: a Differential Scanning Calorimetry Study. BMB Reports, 2002, 35, 472-475.	2.4	17
61	Response of Rhizobium leguminosarum to nickel stress. World Journal of Microbiology and Biotechnology, 2001, 17, 667-672.	3.6	16
62	Isolation and Characterization of Phospho<i>enol</i>pyruvate Phosphatase from Germinating Mung Beans (<i>Vigna radiata</i>). Plant Physiology, 1990, 93, 194-200.	4.8	15
63	Purification and characterization of an allosteric fructose-1,6-bisphosphate aldolase from germinating mung beans (Vigna radiata). Phytochemistry, 2005, 66, 968-974.	2.9	15
64	Fabrication of a Potentiometric/Amperometric Bifunctional Enzyme Microbiosensor. Analytical Chemistry, 2005, 77, 5063-5067.	6.5	15
65	Soybean (Glycine max) urease: Significance of sulfhydryl groups in urea catalysis. Plant Physiology and Biochemistry, 2010, 48, 746-750.	5.8	15
66	Excellent storage stability and sensitive detection of neurotoxin quinolinic acid. Biosensors and Bioelectronics, 2017, 90, 224-229.	10.1	15
67	Determination of accessible bed volume of gels by short column filtration. Biochemical Education, 1992, 20, 116-118.	0.1	14
68	Unfolding and refolding of Leucoagglutinin (PHA-L), an oligomeric lectin from kidney beans (Phaseolus vulgaris). Biochimica Et Biophysica Acta - General Subjects, 2004, 1674, 40-49.	2.4	14
69	Effect of Organic Solvents on the Molten Globule State of Procerain: β-Sheet to α-Helix Switchover in Presence of Trifluoroethanol. Protein and Peptide Letters, 2006, 13, 545-547.	0.9	14
70	Spectroscopic Characterization Of Phaseolus Vulgaris Leucoagglutinin. Protein and Peptide Letters, 2004, 11, 1-7.	0.9	13
71	Identification of maltooligosyltrehalose synthase and maltooligosyltrehalose trehalohydrolase enzymes catalysing trehalose biosynthesis in Anabaena 7120 exposed to NaCl stress. Journal of Plant Physiology, 2005, 162, 1030-1037.	3.5	13
72	Î±-Amylase: General Properties, Mechanism and Biotechnological Applications - A Review. Current Biotechnology, 2012, 1, 98-107.	0.4	13

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73	An antioxidant rich novel Î²-amylase from peanuts (Arachis hypogaea): Its purification, biochemical characterization and potential applications. International Journal of Biological Macromolecules, 2018, 111, 148-157.	7.5	13
74	Phosphoglycerate-kinase-glyceraldehyde-3-phosphate-dehydrogenase Interaction. Molecular Mass Studies. FEBS Journal, 1995, 227, 556-562.	0.2	12
75	Evidence for a Molten Globule State in Cicer Î±-Galactosidase Induced by pH, Temperature, and Guanidine Hydrochloride. Applied Biochemistry and Biotechnology, 2013, 169, 2315-2325.	2.9	12
76	Comparative Characterization of Peanut Î²-Amylase Immobilization onto Graphene Oxide and Graphene Oxide Carbon Nanotubes by Solid-State NMR. Journal of Physical Chemistry C, 2018, 122, 19259-19265.	3.1	11
77	A colorimetric assay for a pyridoxal phosphate-dependent Î²-replacement reaction with l-cysteine: Application to studies of wild-type and mutant tryptophan synthase Î±2Î²2 complexes. Analytical Biochemistry, 1991, 193, 200-203.	2.4	10
78	Kinetics of Thermal Inactivation and Molecular Asymmetry of Urease from Dehusked Pigeongea (Cajanus cajan L.) Seeds. Journal of Plant Biochemistry and Biotechnology, 1998, 7, 121-124.	1.7	10
79	Trehalose-Producing Enzymes MTSase and MTHase in Anabaena 7120 Under NaCl Stress. Current Microbiology, 2008, 56, 429-435.	2.2	10
80	Purification, biochemical characterization and Insilico modeling of Î±-amylase from Vicia faba. Journal of Molecular Liquids, 2017, 234, 133-141.	4.9	10
81	Biochemical and thermodynamic characterization of de novo synthesized Î²-amylase from fenugreek. International Journal of Biological Macromolecules, 2019, 130, 786-797.	7.5	9
82	Kinetics of Inhibition and Molecular Asymmetry in Pigeonpea (Cajanus cajan) Urease. Journal of Biochemistry, Molecular Biology, and Biophysics: JBMBB: the Official Journal of the Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB), 2002, 6, 1-6.	0.4	9
83	Chemical inactivation and active site groups of phosphoenolpyruvate-phosphatase from germinating mung beans (Vigna radiata). Plant Science, 1989, 65, 161-170.	3.6	8
84	Studies on the histidine residues in pigeonpea (Cajanus cajan L.) urease. Journal of Molecular Catalysis B: Enzymatic, 2001, 16, 81-89.	1.8	8
85	Response of Garden Pea to Nickel Toxicity. Journal of Plant Nutrition, 2005, 27, 1543-1560.	1.9	8
86	Purification and Characterization of a Novel Protease from the Latex of Pedilanthus tithymaloids. Protein and Peptide Letters, 2008, 15, 1009-1016.	0.9	8
87	Response surface analysis of nano-ureases from Canavalia ensiformis and Cajanus cajan. International Journal of Biological Macromolecules, 2011, 49, 674-680.	7.5	8
88	Nanoparticles decorated carbon nanotubes as novel matrix: A comparative study of influences of immobilization on the catalytic properties of Lens culinaris Î²-galactosidase (LcÎ²-gal). International Journal of Biological Macromolecules, 2020, 144, 770-780.	7.5	8
89	The Role of Phenolics and Peroxidase in Resistance to Alternaria triticina in Bread Wheat (Triticum) Tj ETQq1 1 0.784314 rgBT /Overlo	3.5	7
90	Metal Uptake and Thiol Production in Spirodela polyrhiza (L.) SP20. Journal of Plant Physiology, 1999, 154, 634-640.	3.5	7

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91	Insights into pH-Induced Conformational Transition of Î²-Galactosidase from Pisum sativum Leading to its Multimerization. Applied Biochemistry and Biotechnology, 2010, 162, 2294-2312.	2.9	7
92	Structural Stability of Soybean (Glycine max) α-Amylase: Properties of the Unfolding Transition Studied with Fluorescence and CD Spectroscopy. Protein and Peptide Letters, 2011, 18, 253-260.	0.9	7
93	Immobilization of fenugreek Î²-amylase onto functionalized tungsten disulfide nanoparticles using response surface methodology: Its characterization and interaction with maltose and sucrose. Colloids and Surfaces B: Biointerfaces, 2020, 185, 110600.	5.0	7
94	An NMR based panorama of the heterogeneous biology of acute respiratory distress syndrome (ARDS) from the standpoint of metabolic biomarkers. NMR in Biomedicine, 2020, 33, e4192.	2.8	7
95	Nitrogen Doped Carbon Quantum Dots Modified by Lens culinaris Î²-Galactosidase as a Fluorescent Probe for Detection of Lactose. Journal of Fluorescence, 2019, 29, 1213-1219.	2.5	6
96	Lens culinaris Î²-galactosidase (Lsbgal): Insights into its purification, biochemical characterization and trisaccharides synthesis. Bioorganic Chemistry, 2020, 95, 103543.	4.1	6
97	Interactions between hydroxyapatite and cholesterol associated with calcification in age-related macular degeneration. Biophysical Chemistry, 2020, 265, 106430.	2.8	6
98	Mechanism of DNA-drug interactions. Applied Biochemistry and Biotechnology, 1994, 47, 39-55.	2.9	5
99	Identification and characterization of Dicer-like genes in leaf rust pathogen (Puccinia triticina) of wheat. Functional and Integrative Genomics, 2020, 20, 711-721.	3.5	5
100	Substrate-Induced Stability of Glyceraldehyde 3-Phosphate Dehydrogenase from Mung Beans (Vigna) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	4.8	4
101	Metabolite channelling in tryptophan synthase. Journal of Theoretical Biology, 1992, 158, 133-134.	1.7	4
102	An assay procedure for determining the rate of an enzyme reaction lacking an optical signal: validity of coupled enzyme assays. Biochemical Education, 1996, 24, 56-59.	0.1	4
103	Kinetics and diffusion studies in urease-alginate biocatalyst beads. Oriental Pharmacy and Experimental Medicine, 2007, 7, 79-84.	1.2	4
104	Induction of Chitinase and Î²-1,3-glucanase in Resistant and Susceptible Wheat Lines Following Infection with Alternaria triticina. Journal of Plant Biochemistry and Biotechnology, 2001, 10, 71-74.	1.7	3
105	Immobilization of Î±-amylase from germinated mung beans (Vigna radiata) on Fullerâ€™s earth by adsorption. Journal of Plant Biochemistry and Biotechnology, 2012, 21, 229-234.	1.7	3
106	Identification of active site residues of Fenugreek Î²-amylase: Chemical modification and in silico approach. Plant Physiology and Biochemistry, 2014, 83, 217-224.	5.8	3
107	Molecular Asymmetry in Pigeonpea Urease: pH Inactivation Studies. Journal of Plant Biochemistry and Biotechnology, 2003, 12, 49-51.	1.7	2
108	Bioinformatics for Legume Genomics Research. , 2014, , 249-275.		2

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109	Advances in the molecular recognition of DNA â€" A step towards therapeutic drug design. Biochemical Education, 1995, 23, 56-64.	0.1	1
110	Application of short column gel permeation in the study of protein-protein interactions. Journal of Proteomics, 1996, 31, 23-30.	2.4	1
111	Wastewater remediation via combo-technology. , 2019, , 91-126.		1
112	Immobilization of Urease on DEAE-Cellulose Strips for One Step Urea Detection. Annals of the National Academy of Medical Sciences (India), 2019, 55, 024-027.	0.3	1
113	Biophysical Investigation of the Interplay between the Conformational Species of Domain-Swapped GB1 Amyloid Mutant through Realâ€"Time Monitoring of Amyloid Fibrillation. ACS Omega, 2021, 6, 34359-34366.	3.5	1
114	Biotechnology programme at Banaras Hindu University, India. Biochemical Education, 1992, 20, 103-105.	0.1	0
115	Protein engineering a novel way to elucidate structure â€" function relationships. Biochemical Education, 1993, 21, 59-66.	0.1	0
116	Volume 227, No. 1/2. FEBS Journal, 1995, 228, 1030-1030.	0.2	0
117	Interactions of aldolase and glyceraldehyde-3-phosphate dehydrogenase: molecular mass studies. IUBMB Life, 1997, 42, 507-515.	3.4	0
118	In Silico Analysis of New Potent Anti-hyperglycemic Molecule for Diabetes Type 2 Management. International Journal of Peptide Research and Therapeutics, 2020, 26, 1031-1042.	1.9	0
119	Current and future trends on polymer-based enzyme immobilization. , 2021, , 1-25.		0
120	Studies of Histidine Residues in Soybean (Glycine max) Urease. Protein and Peptide Letters, 2012, 19, 657-662.	0.9	0
121	Interactions Between Amyloid-Î² (1-42) and Hydroxyapatite-Cholesterol Spherules Associated with Age-Related Macular Degeneration. Protein Journal, 2021, 40, 849-856.	1.6	0
122	Denaturant Induced Equilibrium Unfolding and Conformational Transitional Studies of Germinated Fenugreek Î²-Amylase Revealed Molten Globule like State at Low pH. Protein and Peptide Letters, 2020, 27, 1046-1057.	0.9	0