

Wojciech Plazinski

List of Publications by Year in descending order

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304602

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all docs

93
docs citations

93
times ranked

3345
citing authors

#	ARTICLE	IF	CITATIONS
1	Theoretical models of sorption kinetics including a surface reaction mechanism: A review. <i>Advances in Colloid and Interface Science</i> , 2009, 152, 2-13.	7.0	741
2	Kinetics of Solute Adsorption at Solid/Solution Interfaces: A Theoretical Development of the Empirical Pseudo-First and Pseudo-Second Order Kinetic Rate Equations, Based on Applying the Statistical Rate Theory of Interfacial Transport. <i>Journal of Physical Chemistry B</i> , 2006, 110, 16514-16525.	1.2	285
3	Modeling of sorption kinetics: the pseudo-second order equation and the sorbate intraparticle diffusivity. <i>Adsorption</i> , 2013, 19, 1055-1064.	1.4	199
4	Studies of the Kinetics of Solute Adsorption at Solid/Solution Interfaces: On the Possibility of Distinguishing between the Diffusional and the Surface Reaction Kinetic Models by Studying the Pseudo-First-order Kinetics. <i>Journal of Physical Chemistry C</i> , 2007, 111, 15100-15110.	1.5	112
5	Theoretical description of the kinetics of solute adsorption at heterogeneous solid/solution interfaces. <i>Applied Surface Science</i> , 2007, 253, 5827-5840.	3.1	104
6	On the applicability of the pseudo-second order equation to represent the kinetics of adsorption at solid/solution interfaces: a theoretical analysis based on the statistical rate theory. <i>Adsorption</i> , 2009, 15, 181-192.	1.4	97
7	Molecular basis of calcium binding by polyguluronate chains. Revising the egg-box model. <i>Journal of Computational Chemistry</i> , 2011, 32, 2988-2995.	1.5	86
8	Revision of the GROMOS 56A6 CARBO force field: Improving the description of ring-conformational equilibria in hexopyranose-based carbohydrates chains. <i>Journal of Computational Chemistry</i> , 2016, 37, 354-365.	1.5	77
9	Kinetics of Dyes Adsorption at the Solid-Solution Interfaces: A Theoretical Description Based on the Two-Step Kinetic Model. <i>Environmental Science & Technology</i> , 2008, 42, 2470-2475.	4.6	70
10	Kinetics of Adsorption at Solid/Solution Interfaces Controlled by Intraparticle Diffusion: A Theoretical Analysis. <i>Journal of Physical Chemistry C</i> , 2009, 113, 12495-12501.	1.5	63
11	Binding of heavy metals by algal biosorbents. Theoretical models of kinetics, equilibria and thermodynamics. <i>Advances in Colloid and Interface Science</i> , 2013, 197-198, 58-67.	7.0	53
12	Kinetics of Solute Adsorption at Solid/Aqueous Interfaces: Searching for the Theoretical Background of the Modified Pseudo-First-Order Kinetic Equation. <i>Langmuir</i> , 2008, 24, 5393-5399.	1.6	48
13	Kinetics of Solute Adsorption at Solid/Solution Interfaces: On the Special Features of the Initial Adsorption Kinetics. <i>Langmuir</i> , 2008, 24, 6738-6744.	1.6	48
14	Modeling the Effect of Surface Heterogeneity in Equilibrium of Heavy Metal Ion Biosorption by Using the Ion Exchange Model. <i>Environmental Science & Technology</i> , 2009, 43, 7465-7471.	4.6	40
15	Applicability of the film-diffusion model for description of the adsorption kinetics at the solid/solution interfaces. <i>Applied Surface Science</i> , 2010, 256, 5157-5163.	3.1	32
16	A GROMOS Force Field for Furanose-Based Carbohydrates. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 1168-1186.	2.3	31
17	Resolving the nanostructure of sodium carbonate extracted pectins (DASP) from apple cell walls with atomic force microscopy and molecular dynamics. <i>Food Hydrocolloids</i> , 2020, 104, 105726.	5.6	31
18	Calcium-Guluronate Complexes: Ca ²⁺ Binding Modes from DFT-MD Simulations. <i>Journal of Physical Chemistry B</i> , 2013, 117, 12105-12112.	1.2	29

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19	Sorption of lead, copper, and cadmium by calcium alginate. Metal binding stoichiometry and the pH effect. <i>Environmental Science and Pollution Research</i> , 2012, 19, 3516-3524.	2.7	28
20	Benzo[b]thiophene-thiazoles as potent anti-Toxoplasma gondii agents: Design, synthesis, tyrosinase/tyrosine hydroxylase inhibitors, molecular docking study, and antioxidant activity. <i>European Journal of Medicinal Chemistry</i> , 2019, 184, 111765.	2.6	28
21	The influence of the hexopyranose ring geometry on the conformation of glycosidic linkages investigated using molecular dynamics simulations. <i>Carbohydrate Research</i> , 2015, 415, 17-27.	1.1	27
22	Molecular modeling of Ca ²⁺ -oligo(α -L-galuronate) complexes: toward the understanding of the junction zone structure in calcium alginate gels. <i>Structural Chemistry</i> , 2012, 23, 1409-1415.	1.0	24
23	Sorption of Heavy Metal Ions of Chromium, Manganese, Selenium, Nickel, Cobalt, Iron from Aqueous Acidic Solutions in Batch and Dynamic Conditions on Natural and Synthetic Aluminosilicate Sorbents. <i>Materials</i> , 2020, 13, 5271.	1.3	24
24	Modeling the Effect of pH on Kinetics of Heavy Metal Ion Biosorption. A Theoretical Approach Based on the Statistical Rate Theory. <i>Langmuir</i> , 2009, 25, 298-304.	1.6	23
25	Interactions between CD44 protein and hyaluronan: insights from the computational study. <i>Molecular BioSystems</i> , 2012, 8, 543-547.	2.9	23
26	Comparison of Carbohydrate Force Fields in Molecular Dynamics Simulations of Protein-Carbohydrate Complexes. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 2575-2585.	2.3	23
27	A Novel Two-Resistance Model for Description of the Adsorption Kinetics onto Porous Particles. <i>Langmuir</i> , 2010, 26, 802-808.	1.6	22
28	Amorphous Inclusion Complexes: Molecular Interactions of Hesperidin and Hesperetin with HP- β -CD and Their Biological Effects. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4000.	1.8	21
29	Molecular dynamics simulations of hexopyranose ring distortion in different force fields. <i>Pure and Applied Chemistry</i> , 2017, 89, 1283-1294.	0.9	20
30	Binding of bivalent metal cations by α -D-galuronate: insights from the DFT-MD simulations. <i>New Journal of Chemistry</i> , 2015, 39, 3987-3994.	1.4	19
31	The water-catalyzed mechanism of the ring-opening reaction of glucose. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 21622-21629.	1.3	19
32	Kinetics of metal ions adsorption at heterogeneous solid/solution interfaces: A theoretical treatment based on statistical rate theory. <i>Journal of Colloid and Interface Science</i> , 2008, 327, 36-43.	5.0	18
33	Pyranose ring conformations in mono- and oligosaccharides: a combined MD and DFT approach. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 20760-20772.	1.3	18
34	Effect of the dichloro-substitution on antiproliferative activity of phthalimide-thiazole derivatives. Rational design, synthesis, elastase, caspase 3/7, and EGFR tyrosine kinase activity and molecular modeling study. <i>Bioorganic Chemistry</i> , 2021, 110, 104819.	2.0	18
35	The dynamics of the conformational changes in the hexopyranose ring: a transition path sampling approach. <i>RSC Advances</i> , 2014, 4, 25028-25039.	1.7	17
36	Extension of the GROMOS 56a6 _{CARBO/CARBO_R} Force Field for Charged, Protonated, and Esterified Uronates. <i>Journal of Physical Chemistry B</i> , 2018, 122, 3696-3710.	1.2	17

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37	HPLC-DAD Determination of Nitrite and Nitrate in Human Saliva Utilizing a Phosphatidylcholine Column. <i>Molecules</i> , 2019, 24, 1754.	1.7	17
38	Dissipative particle dynamics model of homogalacturonan based on molecular dynamics simulations. <i>Scientific Reports</i> , 2020, 10, 14691.	1.6	17
39	Molecular dynamics study of the interactions between phenolic compounds and alginate/alginate acid chains. <i>New Journal of Chemistry</i> , 2011, 35, 1607.	1.4	16
40	The systematic influence of solvent on the conformational features of furanosides. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 2479-2485.	1.5	16
41	Agonist binding by the β 2-adrenergic receptor: an effect of receptor conformation on ligand association-dissociation characteristics. <i>European Biophysics Journal</i> , 2015, 44, 149-163.	1.2	15
42	Acyclic forms of aldohexoses and ketohexoses in aqueous and DMSO solutions: conformational features studied using molecular dynamics simulations. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9626-9635.	1.3	15
43	Tropinone-Derived Alkaloids as Potent Anticancer Agents: Synthesis, Tyrosinase Inhibition, Mechanism of Action, DFT Calculation, and Molecular Docking Studies. <i>International Journal of Molecular Sciences</i> , 2020, 21, 9050.	1.8	15
44	Kinetics of Isothermal Gas Adsorption on Heterogeneous Solid Surfaces: Equations Based on Generalization of the Statistical Rate Theory of Interfacial Transport. <i>Journal of Physical Chemistry B</i> , 2005, 109, 21868-21878.	1.2	14
45	Conformational properties of acidic oligo- and disaccharides and their ability to bind calcium: a molecular modeling study. <i>Carbohydrate Research</i> , 2012, 357, 111-117.	1.1	14
46	The endo- and exo-Anomeric Effects in Furanosides. A Computational Study. <i>European Journal of Organic Chemistry</i> , 2020, 2020, 674-679.	1.2	14
47	Conformational Properties of Glycosaminoglycan Disaccharides: A Molecular Dynamics Study. <i>Journal of Physical Chemistry B</i> , 2021, 125, 10900-10916.	1.2	14
48	Tedizolid-Cyclodextrin System as Delayed-Release Drug Delivery with Antibacterial Activity. <i>International Journal of Molecular Sciences</i> , 2021, 22, 115.	1.8	14
49	Ring inversion properties of 1 \rightarrow 2, 1 \rightarrow 3 and 1 \rightarrow 6-linked hexopyranoses and their correlation with the conformation of glycosidic linkages. <i>Carbohydrate Research</i> , 2016, 423, 43-48.	1.1	13
50	Aggregation and weak gel formation by pectic polysaccharide homogalacturonan. <i>Carbohydrate Polymers</i> , 2021, 256, 117566.	5.1	13
51	The Systems of Naringenin with Solubilizers Expand Its Capability to Prevent Neurodegenerative Diseases. <i>International Journal of Molecular Sciences</i> , 2022, 23, 755.	1.8	12
52	How does mechanism of biosorption determine the differences between the initial and equilibrium adsorption states?. <i>Adsorption</i> , 2010, 16, 351-357.	1.4	11
53	The dynamics of the calcium-induced chain-chain association in the polyuronate systems. <i>Journal of Computational Chemistry</i> , 2012, 33, 1709-1715.	1.5	11
54	Pyranose ring puckering in aldopentoses, ketohexoses and deoxyaldohexoses. A molecular dynamics study. <i>Carbohydrate Research</i> , 2018, 455, 62-70.	1.1	11

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55	Combinations of Piperine with Hydroxypropyl- β -Cyclodextrin as a Multifunctional System. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4195.	1.8	11
56	Molecular Structure of Cefuroxime Axetil Complexes with α -, β -, γ -, and 2-Hydroxypropyl- β -Cyclodextrins: Molecular Simulations and Raman Spectroscopic and Imaging Studies. <i>International Journal of Molecular Sciences</i> , 2021, 22, 5238.	1.8	11
57	Binding stoichiometry in sorption of divalent metal ions: A theoretical analysis based on the ion-exchange model. <i>Journal of Colloid and Interface Science</i> , 2010, 344, 165-170.	5.0	10
58	Thermodynamic aspects of calcium binding by poly(α -L-gulonate) chains. A molecular simulation study. <i>Applied Surface Science</i> , 2012, 262, 153-155.	3.1	10
59	Sorption of metal cations by alginate-based biosorbents. On the correct determination of the thermodynamic parameters. <i>Journal of Colloid and Interface Science</i> , 2012, 368, 547-551.	5.0	10
60	The "order-to-disorder" conformational transition in CD44 protein: An umbrella sampling analysis. <i>Journal of Molecular Graphics and Modelling</i> , 2013, 45, 122-127.	1.3	10
61	Fast, metadynamics-based method for prediction of the stereochemistry-dependent relative free energies of ligand-receptor interactions. <i>Journal of Computational Chemistry</i> , 2014, 35, 876-882.	1.5	10
62	Kinetic characteristics of conformational changes in the hexopyranose rings. <i>Carbohydrate Research</i> , 2015, 416, 41-50.	1.1	10
63	A novel derivatives of thiazol-4(5H)-one and their activity in the inhibition of 11 β -hydroxysteroid dehydrogenase type 1. <i>Bioorganic Chemistry</i> , 2018, 79, 115-121.	2.0	10
64	Tautomers of N-acetyl-allosamine: an NMR and computational chemistry study. <i>Organic and Biomolecular Chemistry</i> , 2021, 19, 7190-7201.	1.5	10
65	Force-induced structural changes in non-sulfated carrageenan based oligosaccharides – a theoretical study. <i>Soft Matter</i> , 2018, 14, 6264-6277.	1.2	9
66	Equilibrium and kinetic modeling of metal ion biosorption: on the ways of model generalization for the case of multicomponent systems. <i>Adsorption</i> , 2013, 19, 659-666.	1.4	8
67	Stereoselective binding of agonists to the β_2 -adrenergic receptor: insights into molecular details and thermodynamics from molecular dynamics simulations. <i>Molecular BioSystems</i> , 2017, 13, 910-920.	2.9	8
68	Solid-phase extraction using octadecyl-bonded silica modified with photosynthetic pigments from <i>Spinacia oleracea</i> L. for the preconcentration of lead(II) ions from aqueous samples. <i>Journal of Separation Science</i> , 2018, 41, 3129-3142.	1.3	8
69	Thermodynamic study of new antiepileptic compounds by combining chromatography on the phosphatidylcholine biomimetic stationary phase and differential scanning calorimetry. <i>Journal of Separation Science</i> , 2019, 42, 2628-2639.	1.3	8
70	The Distribution of Glucosinolates in Different Phenotypes of <i>Lepidium peruvianum</i> and Their Role as Acetyl- and Butyrylcholinesterase Inhibitors – In Silico and In Vitro Studies. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4858.	1.8	8
71	Synthesis of the N-methyl Derivatives of 2-Aminothiazol-4(5 H)-one and Their Interactions with 11 β HSD1 – Molecular Modeling and in Vitro Studies. <i>Chemistry and Biodiversity</i> , 2019, 16, e1900065.	1.0	7
72	Chitosan characteristics in electrolyte solutions: Combined molecular dynamics modeling and slender body hydrodynamics. <i>Carbohydrate Polymers</i> , 2022, 292, 119676.	5.1	7

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73	Biosorption of Heavy Metal Ions: Ion-Exchange versus Adsorption and the Heterogeneity of Binding Sites. <i>Adsorption Science and Technology</i> , 2011, 29, 479-486.	1.5	6
74	Ligand-induced action of the W2866.48 rotamer toggle switch in the β 2-adrenergic receptor. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 581-594.	1.3	6
75	Novel 2-(Adamantan-1-ylamino)Thiazol-4(5H)-One Derivatives and Their Inhibitory Activity towards β 2-Adrenergic Receptor: Synthesis, Molecular Docking and In Vitro Studies. <i>International Journal of Molecular Sciences</i> , 2021, 22, 8609.	1.8	6
76	Heavy metals binding to biosorbents. Insights into Non-Competitive Models from a simple pH-dependent model. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 80, 133-137.	2.5	5
77	Statistical Rate Theory Approach to Description of the pH-Dependent Kinetics of Metal Ion Adsorption. <i>Journal of Physical Chemistry C</i> , 2010, 114, 9952-9954.	1.5	5
78	Carrageenan molecule conformations and electrokinetic properties in electrolyte solutions: Modeling and experimental measurements. <i>Food Hydrocolloids</i> , 2021, 121, 107033.	5.6	5
79	Conformations of saturated five-membered heterocycles evaluated by MP2 calculations. <i>Chemistry of Heterocyclic Compounds</i> , 2020, 56, 1599-1604.	0.6	5
80	New Borane-Protected Derivatives of β -Aminophosphonous Acid as Anti-Osteosarcoma Agents: ADME Analysis and Molecular Modeling, In Vitro Studies on Anti-Cancer Activities, and NEP Inhibition as a Possible Mechanism of Anti-Proliferative Activity. <i>International Journal of Molecular Sciences</i> , 2022, 23, 6716.	1.8	5
81	Deciphering the conformational preferences of furanosides. A molecular dynamics study. <i>Journal of Biomolecular Structure and Dynamics</i> , 2020, 38, 3359-3370.	2.0	4
82	Conformational properties of inulin, levan and arabinan studied by molecular dynamics simulations. <i>Carbohydrate Polymers</i> , 2020, 240, 116266.	5.1	4
83	Macroion molecule properties from slender body hydrodynamics. <i>Polymers for Advanced Technologies</i> , 2021, 32, 3900-3908.	1.6	4
84	Tautomeric and epimeric equilibria of aldo- and ketohexoses studied by the MD simulations and QM calculations. <i>Carbohydrate Research</i> , 2019, 474, 8-15.	1.1	4
85	Reply to "Comment on "Kinetics of Solute Adsorption at Solid/Solution Interfaces: A Theoretical Development of the Empirical Pseudo-First and Pseudo-Second Order Kinetic Rate Equations, Based on Applying the Statistical Rate Theory of Interfacial Transport". <i>Journal of Physical Chemistry B</i> , 2007, 111, 319-319.	1.2	3
86	Efficient sampling of high-energy states by machine learning force fields. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14364-14374.	1.3	3
87	Polymers Sorption Properties towards Photosynthetic Pigments and Fungicides. <i>Materials</i> , 2021, 14, 1874.	1.3	3
88	Relation between the NMR data and the pseudorotational free-energy profile for oxolane. <i>Journal of Theoretical and Computational Chemistry</i> , 2019, 18, 1950012.	1.8	2
89	Chirality Effects in Biomolecular Systems: Calculation of the Relative Free Energies by Molecular Dynamics Simulations. <i>Journal of Chemical Information and Modeling</i> , 2020, 60, 5424-5436.	2.5	2
90	Teicoplanin-Modified HPLC Column as a Source of Experimental Parameters for Prediction of the Anticonvulsant Activity of 1,2,4-Triazole-3-Thiones by the Regression Models. <i>Materials</i> , 2020, 13, 2650.	1.3	1

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91	Adsorption of hyaluronan saccharides on the surface of a single walled carbon nanotube. A computational study. Applied Surface Science, 2022, 584, 152599.	3.1	1
92	The Val34Met, Thr164Ile and Ser220Cys Polymorphisms of the β 2-Adrenergic Receptor and Their Consequences on the Receptor Conformational Features: A Molecular Dynamics Simulation Study. International Journal of Molecular Sciences, 2022, 23, 5449.	1.8	1
93	Kinetics of multi-site-occupancy adsorption at the solid/solution interfaces. The absolute rate theory approach. Annales Universitatis Mariae Curie-Skłodowska Sectio AA "Chemia", 2008, 63, .	0.2	0