Tomasz Panczyk

List of Publications by Year in descending order

87 papers	2,071 citations	279487 23 h-index	253896 43 g-index
87 all docs	87 docs citations	87 times ranked	2394 citing authors

#	Article	IF	Citations
1	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
2	Enhanced skin penetration of berberine from proniosome gel attenuates pain and inflammation in a mouse model of osteoarthritis. Biomaterials Science, 2022, 10, 1752-1764.	2.6	3
3	Regulation of water access, storage, separation and release of drugs from the carbon nanotube functionalized by cytosine rich DNA fragments. , 2022, , 212835.		0
4	Adsorption of Evans blue and Congo red on carbon nanotubes and its influence on the fracture parameters of defective and functionalized carbon nanotubes studied using computational methods. Applied Surface Science, 2021, 539, 148236.	3.1	16
5	Molecular Dynamics Analysis of Stabilities of Transitional Hydrogen Bonds in Sulfate Aqueous Solution. Bulletin of the Chemical Society of Japan, 2021, 94, 1491-1498.	2.0	1
6	Lorentz forces induced by a static magnetic field have negligible effects on results from classical molecular dynamics simulations of aqueous solutions. Journal of Molecular Liquids, 2021, 330, 115701.	2.3	10
7	Protonation of Cytosine-Rich Telomeric DNA Fragments by Carboxylated Carbon Nanotubes: Insights from Computational Studies. Journal of Physical Chemistry B, 2021, 125, 5526-5536.	1.2	2
8	Cytosine-Rich DNA Fragments Covalently Bound to Carbon Nanotube as Factors Triggering Doxorubicin Release at Acidic pH. A Molecular Dynamics Study. International Journal of Molecular Sciences, 2021, 22, 8466.	1.8	9
9	Controlled Release of Doxorubicin from the Drug Delivery Formulation Composed of Single-Walled Carbon Nanotubes and Congo Red: A Molecular Dynamics Study and Dynamic Light Scattering Analysis. Pharmaceutics, 2020, 12, 622.	2.0	13
10	Molecular Dynamics Study of the Interaction of Carbon Nanotubes with Telomeric DNA Fragment Containing Noncanonical G-Quadruplex and i-Motif Forms. International Journal of Molecular Sciences, 2020, 21, 1925.	1.8	11
11	Carbon Nanotubes and Short Cytosine-Rich Telomeric DNA Oligomeres as Platforms for Controlled Release of Doxorubicinâ€"A Molecular Dynamics Study. International Journal of Molecular Sciences, 2020, 21, 3619.	1.8	16
12	Conformational Properties of PAMAM Dendrimers Adsorbed on the Gold Surface Studied by Molecular Dynamics Simulation. Journal of Physical Chemistry C, 2019, 123, 22603-22613.	1.5	8
13	Self-Assembled Supramolecular Ribbon-Like Structures Complexed to Single Walled Carbon Nanotubes as Possible Anticancer Drug Delivery Systems. International Journal of Molecular Sciences, 2019, 20, 2064.	1.8	13
14	Mechanism of unfolding and relative stabilities of G-quadruplex and I-motif noncanonical DNA structures analyzed in biased molecular dynamics simulations. Biophysical Chemistry, 2019, 250, 106173.	1.5	12
15	Interaction of Congo Red, Evans Blue and Titan Yellow with doxorubicin in aqueous solutions. A molecular dynamics study. Journal of Molecular Liquids, 2019, 279, 640-648.	2.3	15
16	Interaction of Human Telomeric i-Motif DNA with Single-Walled Carbon Nanotubes: Insights from Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2019, 123, 10343-10353.	1.2	16
17	G-Quadruplex and I-Motif Structures within the Telomeric DNA Duplex. A Molecular Dynamics Analysis of Protonation States as Factors Affecting Their Stability. Journal of Physical Chemistry B, 2019, 123, 468-479.	1.2	20
18	Molecular dynamics analysis of stabilities of the telomeric Watson-Crick duplex and the associated i-motif as a function of pH and temperature. Biophysical Chemistry, 2018, 237, 22-30.	1.5	14

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19	Multimodal, pH Sensitive, and Magnetically Assisted Carrier of Doxorubicin Designed and Analyzed by Means of Computer Simulations. Langmuir, 2018, 34, 2543-2550.	1.6	16
20	Colloid Nanoparticles and Carbon Nanotubes. What Can We Learn About Their Biomedical Application From Molecular Dynamics Simulations?. Springer Proceedings in Physics, 2018, , 23-37.	0.1	0
21	Investigation of the interfacial properties of polyurethane/carbon nanotube hybrid composites: A molecular dynamics study. Applied Surface Science, 2018, 433, 213-221.	3.1	20
22	The inhibition effect of water on the purification of natural gas with nanoporous graphene membranes. Beilstein Journal of Nanotechnology, 2018, 9, 1906-1916.	1.5	3
23	Pegylated and folic acid functionalized carbon nanotubes as pH controlled carriers of doxorubicin. Molecular dynamics analysis of the stability and drug release mechanism. Physical Chemistry Chemical Physics, 2017, 19, 9300-9312.	1.3	38
24	Molecular Dynamics Modeling of the Encapsulation and De-encapsulation of the Carmustine Anticancer Drug in the Inner Volume of a Carbon Nanotube. Journal of Physical Chemistry C, 2017, 121, 18922-18934.	1.5	14
25	Dispersion of single-wall carbon nanotubes with supramolecular Congo red â€“ properties of the complexes and mechanism of the interaction. Beilstein Journal of Nanotechnology, 2017, 8, 636-648.	1.5	9
26	Effects of intermolecular interactions on the stability of carbon nanotube–gold nanoparticle conjugates in solution. International Journal of Nanomedicine, 2016, Volume 11, 5837-5849.	3.3	2
27	Coadsorption of Doxorubicin and Selected Dyes on Carbon Nanotubes. Theoretical Investigation of Potential Application as a pH-Controlled Drug Delivery System. Langmuir, 2016, 32, 4719-4728.	1.6	65
28	Shortening and dispersion of single-walled carbon nanotubes upon interaction with mixed supramolecular compounds. Bio-Algorithms and Med-Systems, 2016, 12, 123-132.	1.0	4
29	Corking and Uncorking Carbon Nanotubes by Metal Nanoparticles Bearing pH-Cleavable Hydrazone Linkers. Theoretical Analysis Based on Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2016, 120, 639-649.	1.5	6
30	In vitro controlled release of cisplatin from gold-carbon nanobottles via cleavable linkages. International Journal of Nanomedicine, 2015, 10, 7425.	3.3	16
31	Sidewall Functionalization of Carbon Nanotubes as a Method of Controlling Structural Transformations of the Magnetically Triggered Nanocontainer: A Molecular Dynamics Study. Journal of Physical Chemistry C, 2015, 119, 8373-8381.	1.5	4
32	Molecular dynamics simulations of proton transverse relaxation times in suspensions of magnetic nanoparticles. Journal of Colloid and Interface Science, 2015, 437, 187-196.	5.0	8
33	Molecular dynamics study of Congo red interaction with carbon nanotubes. RSC Advances, 2014, 4, 47304-47312.	1.7	30
34	Role of Intermolecular Interactions in Assemblies of Nanocontainers Composed of Carbon Nanotubes and Magnetic Nanoparticles: A Molecular Dynamics Study. Journal of Physical Chemistry C, 2014, 118, 1353-1363.	1.5	11
35	In vivo biodistribution of platinum-based drugs encapsulated into multi-walled carbon nanotubes. Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 1465-1475.	1.7	56
36	Carbon nanotubes for delivery of small molecule drugs. Advanced Drug Delivery Reviews, 2013, 65, 1964-2015.	6.6	498

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37	Effects of surface heterogeneity of carbon nanotubes in adsorption of colloid nanoparticles studied by means of computer simulations. Adsorption, 2013, 19, 611-618.	1.4	1
38	Molecular Dynamics Study of Cisplatin Release from Carbon Nanotubes Capped by Magnetic Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 17327-17336.	1.5	50
39	Self-assembly of molecular tripods in two dimensions: structure and thermodynamics from computer simulations. RSC Advances, 2013, 3, 25159.	1.7	29
40	Implicit solvent model for effective molecular dynamics simulations of systems composed of colloid nanoparticles and carbon nanotubes. Journal of Colloid and Interface Science, 2012, 383, 55-62.	5.0	10
41	Adsorption of colloid nanoparticles on carbon nanotubes studied by means of molecular dynamics simulations. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 409, 149-158.	2.3	9
42	Magnetic Anisotropy Effects on the Behavior of a Carbon Nanotube Functionalized by Magnetic Nanoparticles Under External Magnetic Fields. Journal of Physical Chemistry C, 2012, 116, 26091-26101.	1.5	18
43	Carbon nanotube bottles for incorporation, release and enhanced cytotoxic effect of cisplatin. Carbon, 2012, 50, 1625-1634.	5.4	86
44	Enhancing the Control of a Magnetically Capped Molecular Nanocontainer: Monte Carlo Studies. Journal of Physical Chemistry C, 2011, 115, 7928-7938.	1.5	10
45	Computational Study of Some Aspects of Chemical Optimization of a Functional Magnetically Triggered Nanocontainer. Journal of Physical Chemistry C, 2011, 115, 19074-19083.	1.5	13
46	Thermal desorption of chiral molecules from a nanostructured chiral surface: Insights from computer simulations. Thermochimica Acta, 2010, 497, 77-84.	1.2	2
47	Influence of the rotational degrees of freedom on the initial sticking probability of water on Pt{110}-(1Ã—2): A molecular dynamics study. Journal of Chemical Physics, 2010, 133, 034708.	1.2	5
48	A Magnetically Controlled Molecular Nanocontainer as a Drug Delivery System: The Effects of Carbon Nanotube and Magnetic Nanoparticle Parameters from Monte Carlo Simulations. Journal of Physical Chemistry C, 2010, 114, 21299-21308.	1.5	38
49	Dynamics of water adsorption on Pt{110}-(1Ã—2): A molecular dynamics study. Journal of Chemical Physics, 2009, 131, 064703.	1.2	12
50	Monte Carlo Modeling of Chiral Adsorption on Nanostructured Chiral Surfaces and Slit Pores. Langmuir, 2008, 24, 12972-12980.	1.6	5
51	Kinetic Adsorption Energy Distributions of Rough Surfaces: A Computational Study. Langmuir, 2008, 24, 8719-8725.	1.6	10
52	Comparative Analysis of Nitrogen Adsorption Kinetics on Fe(100) and Fe(111) Based on Applying the Statistical Rate Theory. Journal of Physical Chemistry C, 2007, 111, 3175-3184.	1.5	8
53	Collisions of ideal gas molecules with a rough/fractal surface. A computational study. Journal of Computational Chemistry, 2007, 28, 681-688.	1.5	6
54	Molecular dynamics study of the equilibrium flux of gas molecules to a fractal/rough surface. Applied Surface Science, 2007, 253, 5846-5850.	3.1	5

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55	Computer modeling of dissociative gas adsorption on laser-roughened surfaces. Applied Surface Science, 2007, 253, 5622-5627.	3.1	1
56	Sticking coefficient and pressure dependence of desorption rate in the statistical rate theory approach to the kinetics of gas adsorption. Carbon monoxide adsorption/desorption rates on the polycrystalline rhodium surface. Physical Chemistry Chemical Physics, 2006, 8, 3782.	1.3	30
57	On the Equilibrium Nature of Thermodesorption Processes. TPD-NH3 Studies of Surface Acidity of Ni/MgOâ^'Al2O3 Catalysts. Langmuir, 2006, 22, 6613-6621.	1.6	13
58	Monte Carlo simulations of controlled rate thermal analysis spectra. Applied Surface Science, 2005, 239, 353-366.	3.1	0
59	The influence of a small amount of active sites on the adsorption kinetics of nitrogen on ruthenium. Applied Surface Science, 2005, 252, 687-698.	3.1	7
60	Theoretical study of the influence of laser-induced defects on the adsorption of gases on solid surfaces. Applied Surface Science, 2005, 252, 582-590.	3.1	3
61	On the ways of generalization of adsorption kinetic equations for the case of energetically heterogeneous surfaces. Applied Surface Science, 2005, 252, 678-686.	3.1	14
62	Thermodesorption Studies of Energetic Properties of Ni/MgOâ^'Al2O3Catalysts. Determination of Adsorption Energy Distribution Functions. Langmuir, 2005, 21, 7311-7320.	1.6	11
63	Kinetics of Isothermal Gas Adsorption on Heterogeneous Solid Surfaces:Â Equations Based on Generalization of the Statistical Rate Theory of Interfacial Transport. Journal of Physical Chemistry B, 2005, 109, 21868-21878.	1.2	14
64	Hydrogen Adsorption on Nickel (100) Single-Crystal Face. A Monte Carlo Study of the Equilibrium and Kinetics. Journal of Physical Chemistry B, 2005, 109, 10986-10994.	1.2	27
65	Kinetics of gas adsorption on strongly heterogeneous solid surfaces: A statistical rate theory approach. Korean Journal of Chemical Engineering, 2004, 21, 206-211.	1.2	9
66	Application of the statistical rate theory to the computer simulations of adsorption kinetics. Applied Surface Science, 2004, 222, 307-321.	3.1	8
67	Kinetics of dissociative hydrogen adsorption on the (100) nickel single crystal face: a statistical rate theory approach. Applied Surface Science, 2004, 233, 141-154.	3.1	23
68	A quantitative study of solid surface heterogeneity based on the statistical rate theory for analyzing spectra of controlled-rate thermal analysisThe work was carried out at both ICSC-PAS Krakow (Poland) and LEM-INPL Nancy (France).. Physical Chemistry Chemical Physics, 2004, 6, 3684.	1.3	3
69	A Statistical Rate Theory Approach to Kinetics of Dissociative Gas Adsorption on Solids. Journal of Physical Chemistry B, 2004, 108, 2898-2909.	1.2	27
70	The Influence of Lateral Interactions between Adsorbed Molecules on Adsorption Kinetics. A Statistical Rate Theory Approach. Journal of Physical Chemistry B, 2003, 107, 5586-5597.	1.2	13
71	A Simultaneous Description of Kinetics and Equilibria of Adsorption on Heterogeneous Solid Surfaces Based on the Statistical Rate Theory of Interfacial Transport. Langmuir, 2003, 19, 1173-1181.	1.6	17
72	FURTHER SUCCESSFUL APPLICATIONS OF THE NEW THEORETICAL DESCRIPTION OF ADSORPTION/DESORPTION KINETICS BASED ON THE STATISTICAL RATE THEORY. , 2003, , .		0

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73	Kinetics of Multisite-Occupancy Adsorption on Heterogeneous Solid Surfaces:â€‰ A Statistical Rate Theory Approach. Journal of Physical Chemistry B, 2002, 106, 7846-7851.	1.2	21
74	Remarks on the Current State of Adsorption Kinetic Theories for Heterogeneous Solid Surfaces:Â A Comparison of the ART and the SRT Approaches. Langmuir, 2002, 18, 439-449.	1.6	46
75	The Procedure for Evaluating the Adsorption Energy Distribution from an Analysis of Thermodesorption Spectra Based on the Statistical Rate Theory. Adsorption Science and Technology, 2002, 20, 381-391.	1.5	2
76	Thermodesorption studies of energetic properties of nickel and nickel-molybdenum catalysts based on the statistical rate theory of interfacial transport. Applied Catalysis A: General, 2002, 224, 299-310.	2.2	20
77	Thermal desorption from surfaces with laser-induced defects. Applied Surface Science, 2002, 202, 232-240.	3.1	3
78	The Langmuirian Adsorption Kinetics Revised: A Farewell to the XXth Century Theories?. Adsorption, 2002, 8, 23-34.	1.4	63
79	A Fractal Approach to Adsorption on Heterogeneous Solid Surfaces. 1. The Relationship between Geometric and Energetic Surface Heterogeneities. Journal of Physical Chemistry B, 2001, 105, 10847-10856.	1.2	51
80	A Fractal Approach To Adsorption on Heterogeneous Solids Surfaces. 2. Thermodynamic Analysis of Experimental Adsorption Data. Journal of Physical Chemistry B, 2001, 105, 10857-10866.	1.2	26
81	Kinetics of Gas Adsorption in Activated Carbons, Studied by Applying the Statistical Rate Theory of Interfacial Transport. Journal of Physical Chemistry B, 2001, 105, 6858-6866.	1.2	30
82	On the applicability of Arrhenius plot methods to determine surface energetic heterogeneity of adsorbents and catalysts surfaces from experimental TPD spectra. Advances in Colloid and Interface Science, 2000, 84, 1-26.	7.0	33
83	Theory of Thermodesorption from Energetically Heterogeneous Surfaces:Â Combined Effects of Surface Heterogeneity, Readsorption, and Interactions between the Adsorbed Molecules. Langmuir, 2000, 16, 8037-8049.	1.6	39
84	A Quantitative Approach to Calculating the Energetic Heterogeneity of Solid Surfaces from an Analysis of TPD Peaks:Â Comparison of the Results Obtained Using the Absolute Rate Theory and the Statistical Rate Theory of Interfacial Transport. Journal of Physical Chemistry B, 2000, 104, 1984-1997.	1.2	30
85	Kinetics of Isothermal Adsorption on Energetically Heterogeneous Solid Surfaces:Â A New Theoretical Description Based on the Statistical Rate Theory of Interfacial Transport. Journal of Physical Chemistry B, 2000, 104, 9149-9162.	1.2	121
86	A New Quantitative Interpretation of Temperature-Programmed Desorption Spectra from Heterogeneous Solid Surfaces, Based on Statistical Rate Theory of Interfacial Transport:Â The Effects of Simultaneous Readsorption. Langmuir, 1999, 15, 6386-6394.	1.6	43
87	New Method of Estimating the Solid Surface Energetic Heterogeneity from TPD Spectra Based on the Statistical Rate Theory of Interfacial Transport. Langmuir, 1997, 13, 3445-3453.	1.6	26