Tomasz Panczyk

List of Publications by Year in Descending Order

84 papers	1,759 citations	21 h-index	39 g-index
87 ext. papers	1,901 ext. citations	4.8 avg, IF	5 L-index

#	Paper	IF	Citations
84	Adsorption of hyaluronan saccharides on the surface of a single walled carbon nanotube. A computational study. *Applied Surface Science*, **2022**, 584, 152599	6.7	0
83	Regulation of water access, storage, separation and release of drugs from the carbon nanotube functionalized by cytosine rich DNA fragments **2022**, 212835		
82	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	6	2
81	Protonation of Cytosine-Rich Telomeric DNA Fragments by Carboxylated Carbon Nanotubes: Insights from Computational Studies. *Journal of Physical Chemistry B*, **2021**, 125, 5526-5536	3.4	1
80	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	6.7	9
79	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,	6.3	2
78	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,	6.3	7
77	Carbon Nanotubes and Short Cytosine-Rich Telomeric DNA Oligomeres as Platforms for Controlled Release of Doxorubicin-A Molecular Dynamics Study. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	11
76	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,	6.4	3
75	Conformational Properties of PAMAM Dendrimers Adsorbed on the Gold Surface Studied by Molecular Dynamics Simulation. *Journal of Physical Chemistry C*, **2019**, 123, 22603-22613	3.8	3
74	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,	6.3	7
73	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	3.5	9
72	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	6	12
71	Carbon nanotube bottles for incorporation, release and enhanced cytotoxic effect of cisplatin. *Carbon*, **2019**, 50, 1625-1634	10.4	73
70	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	3.4	12
69	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	3.4	16
68	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	3.5	12

67	Multimodal, pH Sensitive, and Magnetically Assisted Carrier of Doxorubicin Designed and Analyzed by Means of Computer Simulations. *Langmuir*, **2018**, 34, 2543-2550	4	12
66	Colloid Nanoparticles and Carbon Nanotubes. What Can We Learn About Their Biomedical Application From Molecular Dynamics Simulations?. *Springer Proceedings in Physics*, **2018**, 23-37	0.2	
65	Investigation of the interfacial properties of polyurethane/carbon nanotube hybrid composites: A molecular dynamics study. *Applied Surface Science*, **2018**, 433, 213-221	6.7	15
64	The inhibition effect of water on the purification of natural gas with nanoporous graphene membranes. *Beilstein Journal of Nanotechnology*, **2018**, 9, 1906-1916	3	3
63	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	3.6	28
62	Dispersion of single-wall carbon nanotubes with supramolecular Congo red - properties of the complexes and mechanism of the interaction. *Beilstein Journal of Nanotechnology*, **2017**, 8, 636-648	3	8
61	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	3.8	12
60	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	3.8	6
59	Effects of intermolecular interactions on the stability of carbon nanotube-gold nanoparticle conjugates in solution. *International Journal of Nanomedicine*, **2016**, 11, 5837-5849	7.3	2
58	Coadsorption of Doxorubicin and Selected Dyes on Carbon Nanotubes. Theoretical Investigation of Potential Application as a pH-Controlled Drug Delivery System. *Langmuir*, **2016**, 32, 4719-28	4	50
57	Shortening and dispersion of single-walled carbon nanotubes upon interaction with mixed supramolecular compounds. *Bio-Algorithms and Med-Systems*, **2016**, 12,	1.2	3
56	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	3.8	4
55	Molecular dynamics simulations of proton transverse relaxation times in suspensions of magnetic nanoparticles. *Journal of Colloid and Interface Science*, **2015**, 437, 187-196	9.3	6
54	In vitro controlled release of cisplatin from gold-carbon nanobottles via cleavable linkages. *International Journal of Nanomedicine*, **2015**, 10, 7425-41	7.3	14
53	Molecular dynamics study of Congo red interaction with carbon nanotubes. *RSC Advances*, **2014**, 4, 47304-47312	3.7	20
52	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	3.8	10
51	In vivo biodistribution of platinum-based drugs encapsulated into multi-walled carbon nanotubes. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2014**, 10, 1465-75	6	48
50	Carbon nanotubes for delivery of small molecule drugs. *Advanced Drug Delivery Reviews*, **2013**, 65, 1964-2015	28.5	427

49	Effects of surface heterogeneity of carbon nanotubes in adsorption of colloid nanoparticles studied by means of computer simulations. *Adsorption*, **2013**, 19, 611-618	2.6	1
48	Molecular Dynamics Study of Cisplatin Release from Carbon Nanotubes Capped by Magnetic Nanoparticles. *Journal of Physical Chemistry C*, **2013**, 117, 17327-17336	3.8	39
47	Self-assembly of molecular tripods in two dimensions: structure and thermodynamics from computer simulations. *RSC Advances*, **2013**, 3, 25159	3.7	28
46	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	9.3	10
45	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	5.1	9
44	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	3.8	18
43	Enhancing the Control of a Magnetically Capped Molecular Nanocontainer: Monte Carlo Studies. *Journal of Physical Chemistry C*, **2011**, 115, 7928-7938	3.8	10
42	Computational Study of Some Aspects of Chemical Optimization of a Functional Magnetically Triggered Nanocontainer. *Journal of Physical Chemistry C*, **2011**, 115, 19074-19083	3.8	13
41	Influence of the rotational degrees of freedom on the initial sticking probability of water on Pt{110}-(1 x 2): a molecular dynamics study. *Journal of Chemical Physics*, **2010**, 133, 034708	3.9	4
40	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	3.8	34
39	Thermal desorption of chiral molecules from a nanostructured chiral surface: Insights from computer simulations. *Thermochimica Acta*, **2010**, 497, 77-84	2.9	2
38	Dynamics of water adsorption on Pt{110}-(1x2): a molecular dynamics study. *Journal of Chemical Physics*, **2009**, 131, 064703	3.9	10
37	Monte Carlo modeling of chiral adsorption on nanostructured chiral surfaces and slit pores. *Langmuir*, **2008**, 24, 12972-80	4	5
36	Kinetic adsorption energy distributions of rough surfaces: a computational study. *Langmuir*, **2008**, 24, 8719-25	4	10
35	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	3.8	8
34	Collisions of ideal gas molecules with a rough/fractal surface. A computational study. *Journal of Computational Chemistry*, **2007**, 28, 681-8	3.5	6
33	Molecular dynamics study of the equilibrium flux of gas molecules to a fractal/rough surface. *Applied Surface Science*, **2007**, 253, 5846-5850	6.7	5
32	Computer modeling of dissociative gas adsorption on laser-roughened surfaces. *Applied Surface Science*, **2007**, 253, 5622-5627	6.7	1

31	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, 3782-95	3.6	26
30	On the equilibrium nature of thermodesorption processes. TPD-NH3 studies of surface acidity of Ni/MgO-Al2O3 catalysts. *Langmuir*, **2006**, 22, 6613-21	4	12
29	Thermodesorption studies of energetic properties of Ni/MgO-Al2O3 catalysts. Determination of adsorption energy distribution functions. *Langmuir*, **2005**, 21, 7311-20	4	11
28	Kinetics of isothermal gas adsorption on heterogeneous solid surfaces: equations based on generalization of the statistical rate theory of interfacial transport. *Journal of Physical Chemistry B*, **2005**, 109, 21868-78	3.4	14
27	Hydrogen adsorption on nickel (100) single-crystal face. A Monte Carlo study of the equilibrium and kinetics. *Journal of Physical Chemistry B*, **2005**, 109, 10986-94	3.4	20
26	Monte Carlo simulations of controlled rate thermal analysis spectra: The influence of surface energetic heterogeneity and lateral interactions between adsorbed molecules. *Applied Surface Science*, **2005**, 239, 353-366	6.7	
25	The influence of a small amount of active sites on the adsorption kinetics of nitrogen on ruthenium. *Applied Surface Science*, **2005**, 252, 687-698	6.7	4
24	Theoretical study of the influence of laser-induced defects on the adsorption of gases on solid surfaces. *Applied Surface Science*, **2005**, 252, 582-590	6.7	3
23	On the ways of generalization of adsorption kinetic equations for the case of energetically heterogeneous surfaces. *Applied Surface Science*, **2005**, 252, 678-686	6.7	14
22	Kinetics of gas adsorption on strongly heterogeneous solid surfaces: A statistical rate theory approach. *Korean Journal of Chemical Engineering*, **2004**, 21, 206-211	2.8	9
21	Application of the statistical rate theory to the computer simulations of adsorption kinetics. *Applied Surface Science*, **2004**, 222, 307-321	6.7	8
20	Kinetics of dissociative hydrogen adsorption on the (100) nickel single crystal face: a statistical rate theory approach. *Applied Surface Science*, **2004**, 233, 141-154	6.7	19
19	A quantitative study of solid surface heterogeneity based on the statistical rate theory for analyzing spectra of controlled-rate thermal analysis. *Physical Chemistry Chemical Physics*, **2004**, 6, 3684	3.6	3
18	A Statistical Rate Theory Approach to Kinetics of Dissociative Gas Adsorption on Solids. *Journal of Physical Chemistry B*, **2004**, 108, 2898-2909	3.4	26
17	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	3.4	12
16	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	4	15
15	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	3.6	2
14	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	3.7	18

13	Thermal desorption from surfaces with laser-induced defects. *Applied Surface Science*, **2002**, 202, 232-240	0.7	3
12	The Langmuirian Adsorption Kinetics Revised: A Farewell to the XXth Century Theories?. *Adsorption* , **2002**, 8, 23-34	2.6	56
11	Kinetics of Multisite-Occupancy Adsorption on Heterogeneous Solid Surfaces: A Statistical Rate Theory Approach. *Journal of Physical Chemistry B*, **2002**, 106, 7846-7851	3.4	17
10	Remarks on the Current State of Adsorption Kinetic Theories for Heterogeneous Solid Surfaces: A Comparison of the ART and the SRT Approaches. *Langmuir*, **2002**, 18, 439-449	4	41
9	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	3.4	48
8	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	3.4	23
7	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	3.4	26
6	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	14.3	31
5	Theory of Thermodesorption from Energetically Heterogeneous Surfaces:Combined Effects of Surface Heterogeneity, Readsorption, and Interactions between the Adsorbed Molecules. *Langmuir* , **2000**, 16, 8037-8049	4	37
4	A Quantitative Approach to Calculating the Energetic Heterogeneity of Solid Surfaces from an Analysis of TPD Peaks: 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	3.4	29
3	Kinetics of Isothermal Adsorption on Energetically Heterogeneous Solid Surfaces: A New Theoretical Description Based on the Statistical Rate Theory of Interfacial Transport. *Journal of Physical Chemistry B*, **2000**, 104, 9149-9162	3.4	110
2	A New Quantitative Interpretation of Temperature-Programmed Desorption Spectra from Heterogeneous Solid Surfaces, Based on Statistical Rate Theory of Interfacial Transport: The Effects of Simultaneous Readsorption. *Langmuir*, **1999**, 15, 6386-6394	4	38
1	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	4	24