

# Tomasz Panczyk

## List of Publications by Year in descending order

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87  
papers

2,071  
citations

279798

23  
h-index

254184

43  
g-index

87  
all docs

87  
docs citations

87  
times ranked

2394  
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon nanotubes for delivery of small molecule drugs. <i>Advanced Drug Delivery Reviews</i> , 2013, 65, 1964-2015.	13.7	498
2	Kinetics of Isothermal Adsorption on Energetically Heterogeneous Solid Surfaces: A New Theoretical Description Based on the Statistical Rate Theory of Interfacial Transport. <i>Journal of Physical Chemistry B</i> , 2000, 104, 9149-9162.	2.6	121
3	Carbon nanotube bottles for incorporation, release and enhanced cytotoxic effect of cisplatin. <i>Carbon</i> , 2012, 50, 1625-1634.	10.3	86
4	Coadsorption of Doxorubicin and Selected Dyes on Carbon Nanotubes. Theoretical Investigation of Potential Application as a pH-Controlled Drug Delivery System. <i>Langmuir</i> , 2016, 32, 4719-4728.	3.5	65
5	The Langmuirian Adsorption Kinetics Revised: A Farewell to the XXth Century Theories?. <i>Adsorption</i> , 2002, 8, 23-34.	3.0	63
6	In vivo biodistribution of platinum-based drugs encapsulated into multi-walled carbon nanotubes. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2014, 10, 1465-1475.	3.3	56
7	A Fractal Approach to Adsorption on Heterogeneous Solid Surfaces. 1. The Relationship between Geometric and Energetic Surface Heterogeneities. <i>Journal of Physical Chemistry B</i> , 2001, 105, 10847-10856.	2.6	51
8	Molecular Dynamics Study of Cisplatin Release from Carbon Nanotubes Capped by Magnetic Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2013, 117, 17327-17336.	3.1	50
9	Remarks on the Current State of Adsorption Kinetic Theories for Heterogeneous Solid Surfaces: A Comparison of the ART and the SRT Approaches. <i>Langmuir</i> , 2002, 18, 439-449.	3.5	46
10	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. <i>Langmuir</i> , 1999, 15, 6386-6394.	3.5	43
11	Theory of Thermodesorption from Energetically Heterogeneous Surfaces: Combined Effects of Surface Heterogeneity, Readsorption, and Interactions between the Adsorbed Molecules. <i>Langmuir</i> , 2000, 16, 8037-8049.	3.5	39
12	A Magnetically Controlled Molecular Nanocontainer as a Drug Delivery System: The Effects of Carbon Nanotube and Magnetic Nanoparticle Parameters from Monte Carlo Simulations. <i>Journal of Physical Chemistry C</i> , 2010, 114, 21299-21308.	3.1	38
13	Pegylated and folic acid functionalized carbon nanotubes as pH controlled carriers of doxorubicin. Molecular dynamics analysis of the stability and drug release mechanism. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 9300-9312.	2.8	38
14	On the applicability of Arrhenius plot methods to determine surface energetic heterogeneity of adsorbents and catalysts surfaces from experimental TPD spectra. <i>Advances in Colloid and Interface Science</i> , 2000, 84, 1-26.	14.7	33
15	A Quantitative Approach to Calculating the Energetic Heterogeneity of Solid Surfaces from an Analysis of TPD Peaks: A Comparison of the Results Obtained Using the Absolute Rate Theory and the Statistical Rate Theory of Interfacial Transport. <i>Journal of Physical Chemistry B</i> , 2000, 104, 1984-1997.	2.6	30
16	Kinetics of Gas Adsorption in Activated Carbons, Studied by Applying the Statistical Rate Theory of Interfacial Transport. <i>Journal of Physical Chemistry B</i> , 2001, 105, 6858-6866.	2.6	30
17	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. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 3782.	2.8	30
18	Molecular dynamics study of Congo red interaction with carbon nanotubes. <i>RSC Advances</i> , 2014, 4, 47304-47312.	3.6	30

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19	Self-assembly of molecular tripods in two dimensions: structure and thermodynamics from computer simulations. <i>RSC Advances</i> , 2013, 3, 25159.	3.6	29
20	A Statistical Rate Theory Approach to Kinetics of Dissociative Gas Adsorption on Solids. <i>Journal of Physical Chemistry B</i> , 2004, 108, 2898-2909.	2.6	27
21	Hydrogen Adsorption on Nickel (100) Single-Crystal Face. A Monte Carlo Study of the Equilibrium and Kinetics. <i>Journal of Physical Chemistry B</i> , 2005, 109, 10986-10994.	2.6	27
22	New Method of Estimating the Solid Surface Energetic Heterogeneity from TPD Spectra Based on the Statistical Rate Theory of Interfacial Transport. <i>Langmuir</i> , 1997, 13, 3445-3453.	3.5	26
23	A Fractal Approach To Adsorption on Heterogeneous Solids Surfaces. 2. Thermodynamic Analysis of Experimental Adsorption Data. <i>Journal of Physical Chemistry B</i> , 2001, 105, 10857-10866.	2.6	26
24	Kinetics of dissociative hydrogen adsorption on the (100) nickel single crystal face: a statistical rate theory approach. <i>Applied Surface Science</i> , 2004, 233, 141-154.	6.1	23
25	Kinetics of Multisite-Occupancy Adsorption on Heterogeneous Solid Surfaces: A Statistical Rate Theory Approach. <i>Journal of Physical Chemistry B</i> , 2002, 106, 7846-7851.	2.6	21
26	Thermodesorption studies of energetic properties of nickel and nickel-molybdenum catalysts based on the statistical rate theory of interfacial transport. <i>Applied Catalysis A: General</i> , 2002, 224, 299-310.	4.3	20
27	Investigation of the interfacial properties of polyurethane/carbon nanotube hybrid composites: A molecular dynamics study. <i>Applied Surface Science</i> , 2018, 433, 213-221.	6.1	20
28	G-Quadruplex and I-Motif Structures within the Telomeric DNA Duplex. A Molecular Dynamics Analysis of Protonation States as Factors Affecting Their Stability. <i>Journal of Physical Chemistry B</i> , 2019, 123, 468-479.	2.6	20
29	Magnetic Anisotropy Effects on the Behavior of a Carbon Nanotube Functionalized by Magnetic Nanoparticles Under External Magnetic Fields. <i>Journal of Physical Chemistry C</i> , 2012, 116, 26091-26101.	3.1	18
30	A Simultaneous Description of Kinetics and Equilibria of Adsorption on Heterogeneous Solid Surfaces Based on the Statistical Rate Theory of Interfacial Transport. <i>Langmuir</i> , 2003, 19, 1173-1181.	3.5	17
31	In vitro controlled release of cisplatin from gold-carbon nanobottles via cleavable linkages. <i>International Journal of Nanomedicine</i> , 2015, 10, 7425.	6.7	16
32	Multimodal, pH Sensitive, and Magnetically Assisted Carrier of Doxorubicin Designed and Analyzed by Means of Computer Simulations. <i>Langmuir</i> , 2018, 34, 2543-2550.	3.5	16
33	Interaction of Human Telomeric i-Motif DNA with Single-Walled Carbon Nanotubes: Insights from Molecular Dynamics Simulations. <i>Journal of Physical Chemistry B</i> , 2019, 123, 10343-10353.	2.6	16
34	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. <i>Applied Surface Science</i> , 2021, 539, 148236.	6.1	16
35	Carbon Nanotubes and Short Cytosine-Rich Telomeric DNA Oligomers as Platforms for Controlled Release of Doxorubicin: A Molecular Dynamics Study. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3619.	4.1	16
36	Interaction of Congo Red, Evans Blue and Titan Yellow with doxorubicin in aqueous solutions. A molecular dynamics study. <i>Journal of Molecular Liquids</i> , 2019, 279, 640-648.	4.9	15

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37	On the ways of generalization of adsorption kinetic equations for the case of energetically heterogeneous surfaces. <i>Applied Surface Science</i> , 2005, 252, 678-686.	6.1	14
38	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.	2.6	14
39	Molecular Dynamics Modeling of the Encapsulation and De-encapsulation of the Carmustine Anticancer Drug in the Inner Volume of a Carbon Nanotube. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18922-18934.	3.1	14
40	Molecular dynamics analysis of stabilities of the telomeric Watson-Crick duplex and the associated i-motif as a function of pH and temperature. <i>Biophysical Chemistry</i> , 2018, 237, 22-30.	2.8	14
41	The Influence of Lateral Interactions between Adsorbed Molecules on Adsorption Kinetics. A Statistical Rate Theory Approach. <i>Journal of Physical Chemistry B</i> , 2003, 107, 5586-5597.	2.6	13
42	On the Equilibrium Nature of Thermodesorption Processes. TPD-NH <sub>3</sub> Studies of Surface Acidity of Ni/MgO/Al <sub>2</sub> O <sub>3</sub> Catalysts. <i>Langmuir</i> , 2006, 22, 6613-6621.	3.5	13
43	Computational Study of Some Aspects of Chemical Optimization of a Functional Magnetically Triggered Nanocontainer. <i>Journal of Physical Chemistry C</i> , 2011, 115, 19074-19083.	3.1	13
44	Self-Assembled Supramolecular Ribbon-Like Structures Complexed to Single Walled Carbon Nanotubes as Possible Anticancer Drug Delivery Systems. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2064.	4.1	13
45	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. <i>Pharmaceutics</i> , 2020, 12, 622.	4.5	13
46	Dynamics of water adsorption on Pt{110}-(1 $\bar{1}$ -2): A molecular dynamics study. <i>Journal of Chemical Physics</i> , 2009, 131, 064703.	3.0	12
47	Mechanism of unfolding and relative stabilities of G-quadruplex and I-motif noncanonical DNA structures analyzed in biased molecular dynamics simulations. <i>Biophysical Chemistry</i> , 2019, 250, 106173.	2.8	12
48	Thermodesorption Studies of Energetic Properties of Ni/MgO/Al <sub>2</sub> O <sub>3</sub> Catalysts. Determination of Adsorption Energy Distribution Functions. <i>Langmuir</i> , 2005, 21, 7311-7320.	3.5	11
49	Role of Intermolecular Interactions in Assemblies of Nanocontainers Composed of Carbon Nanotubes and Magnetic Nanoparticles: A Molecular Dynamics Study. <i>Journal of Physical Chemistry C</i> , 2014, 118, 1353-1363.	3.1	11
50	Molecular Dynamics Study of the Interaction of Carbon Nanotubes with Telomeric DNA Fragment Containing Noncanonical G-Quadruplex and i-Motif Forms. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1925.	4.1	11
51	Kinetic Adsorption Energy Distributions of Rough Surfaces: A Computational Study. <i>Langmuir</i> , 2008, 24, 8719-8725.	3.5	10
52	Enhancing the Control of a Magnetically Capped Molecular Nanocontainer: Monte Carlo Studies. <i>Journal of Physical Chemistry C</i> , 2011, 115, 7928-7938.	3.1	10
53	Implicit solvent model for effective molecular dynamics simulations of systems composed of colloid nanoparticles and carbon nanotubes. <i>Journal of Colloid and Interface Science</i> , 2012, 383, 55-62.	9.4	10
54	Lorentz forces induced by a static magnetic field have negligible effects on results from classical molecular dynamics simulations of aqueous solutions. <i>Journal of Molecular Liquids</i> , 2021, 330, 115701.	4.9	10

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55	Kinetics of gas adsorption on strongly heterogeneous solid surfaces: A statistical rate theory approach. <i>Korean Journal of Chemical Engineering</i> , 2004, 21, 206-211.	2.7	9
56	Adsorption of colloid nanoparticles on carbon nanotubes studied by means of molecular dynamics simulations. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 409, 149-158.	4.7	9
57	Dispersion of single-wall carbon nanotubes with supramolecular Congo red " properties of the complexes and mechanism of the interaction. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 636-648.	2.8	9
58	Cytosine-Rich DNA Fragments Covalently Bound to Carbon Nanotube as Factors Triggering Doxorubicin Release at Acidic pH. A Molecular Dynamics Study. <i>International Journal of Molecular Sciences</i> , 2021, 22, 8466.	4.1	9
59	Application of the statistical rate theory to the computer simulations of adsorption kinetics. <i>Applied Surface Science</i> , 2004, 222, 307-321.	6.1	8
60	Comparative Analysis of Nitrogen Adsorption Kinetics on Fe(100) and Fe(111) Based on Applying the Statistical Rate Theory. <i>Journal of Physical Chemistry C</i> , 2007, 111, 3175-3184.	3.1	8
61	Molecular dynamics simulations of proton transverse relaxation times in suspensions of magnetic nanoparticles. <i>Journal of Colloid and Interface Science</i> , 2015, 437, 187-196.	9.4	8
62	Conformational Properties of PAMAM Dendrimers Adsorbed on the Gold Surface Studied by Molecular Dynamics Simulation. <i>Journal of Physical Chemistry C</i> , 2019, 123, 22603-22613.	3.1	8
63	The influence of a small amount of active sites on the adsorption kinetics of nitrogen on ruthenium. <i>Applied Surface Science</i> , 2005, 252, 687-698.	6.1	7
64	Collisions of ideal gas molecules with a rough/fractal surface. A computational study. <i>Journal of Computational Chemistry</i> , 2007, 28, 681-688.	3.3	6
65	Corcking and Uncorking Carbon Nanotubes by Metal Nanoparticles Bearing pH-Cleavable Hydrazone Linkers. Theoretical Analysis Based on Molecular Dynamics Simulations. <i>Journal of Physical Chemistry C</i> , 2016, 120, 639-649.	3.1	6
66	Molecular dynamics study of the equilibrium flux of gas molecules to a fractal/rough surface. <i>Applied Surface Science</i> , 2007, 253, 5846-5850.	6.1	5
67	Monte Carlo Modeling of Chiral Adsorption on Nanostructured Chiral Surfaces and Slit Pores. <i>Langmuir</i> , 2008, 24, 12972-12980.	3.5	5
68	Influence of the rotational degrees of freedom on the initial sticking probability of water on Pt{110}-(1 $\times$ 2): A molecular dynamics study. <i>Journal of Chemical Physics</i> , 2010, 133, 034708.	3.0	5
69	Sidewall Functionalization of Carbon Nanotubes as a Method of Controlling Structural Transformations of the Magnetically Triggered Nanocontainer: A Molecular Dynamics Study. <i>Journal of Physical Chemistry C</i> , 2015, 119, 8373-8381.	3.1	4
70	Shortening and dispersion of single-walled carbon nanotubes upon interaction with mixed supramolecular compounds. <i>Bio-Algorithms and Med-Systems</i> , 2016, 12, 123-132.	2.4	4
71	Thermal desorption from surfaces with laser-induced defects. <i>Applied Surface Science</i> , 2002, 202, 232-240.	6.1	3
72	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).. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 3684.	2.8	3

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73	Theoretical study of the influence of laser-induced defects on the adsorption of gases on solid surfaces. <i>Applied Surface Science</i> , 2005, 252, 582-590.	6.1	3
74	The inhibition effect of water on the purification of natural gas with nanoporous graphene membranes. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1906-1916.	2.8	3
75	Enhanced skin penetration of berberine from proniosome gel attenuates pain and inflammation in a mouse model of osteoarthritis. <i>Biomaterials Science</i> , 2022, 10, 1752-1764.	5.4	3
76	The Procedure for Evaluating the Adsorption Energy Distribution from an Analysis of Thermodesorption Spectra Based on the Statistical Rate Theory. <i>Adsorption Science and Technology</i> , 2002, 20, 381-391.	3.2	2
77	Thermal desorption of chiral molecules from a nanostructured chiral surface: Insights from computer simulations. <i>Thermochimica Acta</i> , 2010, 497, 77-84.	2.7	2
78	Effects of intermolecular interactions on the stability of carbon nanotube&ndash;gold nanoparticle conjugates in solution. <i>International Journal of Nanomedicine</i> , 2016, Volume 11, 5837-5849.	6.7	2
79	Protonation of Cytosine-Rich Telomeric DNA Fragments by Carboxylated Carbon Nanotubes: Insights from Computational Studies. <i>Journal of Physical Chemistry B</i> , 2021, 125, 5526-5536.	2.6	2
80	Computer modeling of dissociative gas adsorption on laser-roughened surfaces. <i>Applied Surface Science</i> , 2007, 253, 5622-5627.	6.1	1
81	Effects of surface heterogeneity of carbon nanotubes in adsorption of colloid nanoparticles studied by means of computer simulations. <i>Adsorption</i> , 2013, 19, 611-618.	3.0	1
82	Molecular Dynamics Analysis of Stabilities of Transitional Hydrogen Bonds in Sulfate Aqueous Solution. <i>Bulletin of the Chemical Society of Japan</i> , 2021, 94, 1491-1498.	3.2	1
83	Adsorption of hyaluronan saccharides on the surface of a single walled carbon nanotube. A computational study. <i>Applied Surface Science</i> , 2022, 584, 152599.	6.1	1
84	Monte Carlo simulations of controlled rate thermal analysis spectra. <i>Applied Surface Science</i> , 2005, 239, 353-366.	6.1	0
85	Colloid Nanoparticles and Carbon Nanotubes. What Can We Learn About Their Biomedical Application From Molecular Dynamics Simulations?. <i>Springer Proceedings in Physics</i> , 2018, , 23-37.	0.2	0
86	FURTHER SUCCESSFUL APPLICATIONS OF THE NEW THEORETICAL DESCRIPTION OF ADSORPTION/DESORPTION KINETICS BASED ON THE STATISTICAL RATE THEORY. , 2003, , .		0
87	Regulation of water access, storage, separation and release of drugs from the carbon nanotube functionalized by cytosine rich DNA fragments. , 2022, , 212835.		0