

# Adam Gadomski

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79  
papers

631  
citations

14  
h-index

19  
g-index

92  
ext. papers

727  
ext. citations

2.4  
avg, IF

3.93  
L-index

#	Paper	IF	Citations
79	Spherulites: How Do They Emerge at an Onset of Nonequilibrium Kinetic-Thermodynamic and Structural Singularity Addressing Conditions?. <i>Entropy</i> , <b>2022</b> , 24, 663	2.8	0
78	Derivation of the refractive index of lipid monolayers at an air-water interface. <i>Optical Materials</i> , <b>2019</b> , 93, 1-5	3.3	1
77	On (sub)mesoscopic scale peculiarities of diffusion driven growth in an active matter confined space, and related (bio)material realizations. <i>BioSystems</i> , <b>2019</b> , 176, 56-58	1.9	0
76	The Anomalies of Hyaluronan Structures in Presence of Surface Active Phospholipids-Molecular Mass Dependence. <i>Polymers</i> , <b>2018</b> , 10,	4.5	7
75	Capstan-like mechanism in hyaluronan-phospholipid systems. <i>Chemistry and Physics of Lipids</i> , <b>2018</b> , 216, 17-24	3.7	3
74	Fractional Calculus Evaluation of Hyaluronic Acid Crosslinking in a Nanoscopic Part of Articular Cartilage Model System. <i>Springer Proceedings in Mathematics and Statistics</i> , <b>2018</b> , 25-35	0.2	
73	Note on Appearance of Zigzag Type Self Similarity in Flying Bird Flocks Performing Directional Collective Motions in Mild-Weather Conditions. <i>Current Topics in Biophysics</i> , <b>2018</b> , 41, 5-9	0	
72	Physical crosslinking of hyaluronic acid in the presence of phospholipids in an aqueous nano-environment. <i>Soft Matter</i> , <b>2018</b> , 14, 8997-9004	3.6	17
71	Temperature dependent volume expansion of microgel in nonequilibria. <i>European Physical Journal B</i> , <b>2018</b> , 91, 1	1.2	1
70	Entropy Production Associated with Aggregation into Granules in a Subdiffusive Environment. <i>Entropy</i> , <b>2018</b> , 20,	2.8	3
69	Hyaluronic acid and phospholipid interactions useful for repaired articular cartilage surfaces-a mini review toward tribological surgical adjuvants. <i>Colloid and Polymer Science</i> , <b>2017</b> , 295, 403-412	2.4	22
68	Molecular Dynamic Analysis of Hyaluronic Acid and Phospholipid Interaction in Tribological Surgical Adjuvant Design for Osteoarthritis. <i>Molecules</i> , <b>2017</b> , 22,	4.8	19
67	Anomalous Behavior of Hyaluronan Crosslinking Due to the Presence of Excess Phospholipids in the Articular Cartilage System of Osteoarthritis. <i>International Journal of Molecular Sciences</i> , <b>2017</b> , 18,	6.3	10
66	Shape Change of Micelles Dragged with Constant Velocity as Addressed in Terms of Biolubrication Application. <i>Acta Physica Polonica A</i> , <b>2016</b> , 129, 188-189	0.6	2
65	Micelle Confined in Aqueous Environment: Lubrication at the Nanoscale and Its Nonlinear Characteristics. <i>Springer Proceedings in Mathematics and Statistics</i> , <b>2016</b> , 73-80	0.2	
64	The amphoteric effect on friction between the bovine cartilage/cartilage surfaces under slightly sheared hydration lubrication mode. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2016</b> , 146, 452-8	6	11
63	On two opposing (bio)surfaces as comprehended in terms of an extension of the Coulomb-Amontons law of friction with its virtual usefulness for biotribology at the nanoscale. <i>Biophysics (Russian Federation)</i> , <b>2015</b> , 60, 992-996	0.7	2

62	Multilevel-interaction friction procedure applicable in case of two opposing surfaces competing with one another – Gedanken experiment. <i>Physics Essays</i> , <b>2015</b> , 28, 650-653	1.1	3
61	Thermodiffusion as a close-to-interface effect that matters in non-isothermal (dis)orderly protein aggregations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2014</b> , 378, 2881-2887	2.3	3
60	Three types of computational soft-matter problems revisited, an own-selection-based opinion. <i>Frontiers in Physics</i> , <b>2014</b> , 2,	3.9	1
59	Ranking structures and rank-rank correlations of countries: The FIFA and UEFA cases. <i>International Journal of Modern Physics C</i> , <b>2014</b> , 25, 1450060	1.1	5
58	Primacy and ranking of UEFA soccer teams from biasing organization rules. <i>Physica Scripta</i> , <b>2014</b> , 89, 108002	2.6	5
57	Lipid distribution in human knee and hip articular cartilage correlated to tissue surface roughness and surface active phospholipid layer presence: evidence of cooperative interfacial lipid delivery mechanisms. <i>Osteoarthritis and Cartilage</i> , <b>2014</b> , 22, S312-S313	6.2	3
56	Some conceptual thoughts toward nanoscale oriented friction in a model of articular cartilage. <i>Mathematical Biosciences</i> , <b>2013</b> , 244, 188-200	3.9	18
55	On the origin of the phase-space diffusion limit in (dis)ordered protein aggregation. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2013</b> , 392, 3155-3167	3.3	2
54	A Method of Mechanical Control of Structure-property Relationship in Grains-containing Material Systems. <i>Acta Physica Polonica B</i> , <b>2013</b> , 44, 1049	1.9	2
53	Toward a Governing Mechanism of Nanoscale Articular Cartilage (Physiologic) Lubrication: Smoluchowski-type Dynamics in Amphiphile Proton Channels. <i>Acta Physica Polonica B</i> , <b>2013</b> , 44, 1801	1.9	4
52	The role of lamellate phospholipid bilayers in lubrication of joints. <i>Acta of Bioengineering and Biomechanics</i> , <b>2012</b> , 14, 101-6	0.6	12
51	Controlling protein crystal growth rate by means of temperature. <i>Journal of Physics Condensed Matter</i> , <b>2011</b> , 23, 235101	1.8	9
50	On morphological selection rule of noisy character applied to model (dis)orderly protein formations. <i>Journal of Chemical Physics</i> , <b>2010</b> , 132, 195103	3.9	5
49	Comment on How skew distributions emerge in evolving systems by Choi M. Y. et al.. <i>Europhysics Letters</i> , <b>2010</b> , 89, 40002	1.6	4
48	Revealing sol-gel type main effects by exploring a molecular cluster behavior in model in-plane amphiphilic aggregations. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2010</b> , 389, 3053-3068	3.3	2
47	The ultra-low friction of the articular surface is pH-dependent and is built on a hydrophobic underlay including a hypothesis on joint lubrication mechanism. <i>Tribology International</i> , <b>2010</b> , 43, 1719-1725	4.9	20
46	Supermolecular structure formation of PMP membranes: Theoretical argumentation in terms of the experimental evidences. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2009</b> , 163, 105-113	3.1	2
45	Growing lysozyme crystals under various physicochemical conditions: Computer modelling. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 4221-4226	3.9	2

44	Directed Ion Transport as Virtual Cause of Some Facilitated Friction Lubrication Mechanism Prevailing in Articular Cartilage: A Hypothesis. <i>Tribology Letters</i> , <b>2008</b> , 30, 83-90	2.8	13
43	On the spherical prototype of a complex dissipative late-stage formation seen in terms of least action Vojta-Natanson principle. <i>BioSystems</i> , <b>2008</b> , 94, 242-7	1.9	3
42	Simple example of structure versus property relationship applied to a reduced-friction biosystem, a quite personal opinion. <i>BioSystems</i> , <b>2008</b> , 94, 215-7	1.9	5
41	On the formation of crystalline microstructures of monolayers seen in terms of qualitative diffusion-type models at mesoscale. <i>Technical Physics Letters</i> , <b>2008</b> , 34, 803-805	0.7	2
40	Thermokinetic approach of single particles and clusters involving anomalous diffusion under viscoelastic response. <i>Journal of Physical Chemistry B</i> , <b>2007</b> , 111, 2293-8	3.4	30
39	Soft-Material Dissipative Formation by a Kramers-Type Picture. <i>Research Letters in Materials Science</i> , <b>2007</b> , 2007, 1-4		
38	Kinetic thermodynamic effects accompanying model protein-like aggregation: The wave-like limit and beyond it. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2007</b> , 373, 43-57	3.3	14
37	On the protein crystal formation as an interface-controlled process with prototype ion-channeling effect. <i>Journal of Biological Physics</i> , <b>2007</b> , 33, 313-29	1.6	8
36	On the Harmonic-Mean Property of Model Dispersive Systems Emerging Under Mononuclear, Mixed and Polynuclear Path Conditions <b>2007</b> , 283-296		1
35	COMPUTER MODEL OF BIOPOLYMER CRYSTAL GROWTH AND AGGREGATION BY ADDITION OF MACROMOLECULAR UNITS I A COMPARATIVE STUDY. <i>International Journal of Modern Physics C</i> , <b>2006</b> , 17, 1037-1053	1.1	8
34	COMPUTER MODEL OF A LYSOZYME CRYSTAL GROWTH WITH/WITHOUT NANOTEMPLATE I A COMPARISON. <i>International Journal of Modern Physics C</i> , <b>2006</b> , 17, 1359-1366	1.1	6
33	Agglomeration/Aggregation and Chaotic Behaviour in d-Dimensional Spatio-Temporal Matter Rearrangements Number-Theoretic Aspects <b>2006</b> , 275-294		3
32	On temperature- and space-dimension dependent matter agglomerations in a mature growing stage. <i>Chemical Physics</i> , <b>2005</b> , 310, 153-161	2.3	12
31	On the elastic contribution to crystal growth in complex environments. <i>Physica Status Solidi (B): Basic Research</i> , <b>2005</b> , 242, 538-549	1.3	7
30	MULTILINEAL RANDOM PATTERNS EVOLVING SUBDIFFUSIVELY IN SQUARE LATTICE. <i>Fractals</i> , <b>2003</b> , 11, 233-241	3.2	21
29	On the two principal curvatures as potential barriers in a model of complex matter agglomeration. <i>Chemical Physics</i> , <b>2003</b> , 293, 169-177	2.3	20
28	Finite volume effects in a model grain growth. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2003</b> , 325, 284-291	3.3	6
27	Nonequilibrium thermodynamics versus model grain growth: derivation and some physical implications. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2003</b> , 326, 333-343	3.3	22

26	A Kinetic Model of Protein Crystal Growth in Mass Convection Regime. <i>Crystal Research and Technology</i> , <b>2002</b> , 37, 281-291	1.3	22
25	CURVATURE EFFECTS IN CLUSTERS GROWN IN A 2D DISCRETE SPACE: AN ALGEBRAIC APPROACH. <i>International Journal of Modern Physics C</i> , <b>2002</b> , 13, 1285-1299	1.1	1
24	On the kinetics of polymer crystallization: a possible mechanism. <i>Journal of Molecular Liquids</i> , <b>2000</b> , 86, 237-247	6	7
23	On the crystalline-amorphous supermolecular structure of poly(4-methyl-1-pentene) films cast from solution: experimental evidences and theoretical remarks. <i>Journal of Molecular Liquids</i> , <b>2000</b> , 86, 249-257	6	13
22	Stochastic Evolution of a Discrete Line: Numerical Results <b>2000</b> , 496-506		1
21	Polymorphic phase transitions in systems evolving in a two-dimensional discrete space. <i>Physical Review E</i> , <b>1999</b> , 60, 1252-61	2.4	10
20	Fractal-type relations and extensions suitable for systems of evolving polycrystalline microstructures. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1999</b> , 274, 325-332	3.3	6
19	Nucleation-and-growth problem in model lipid membranes undergoing subgel phase transitions is a problem of time scale. <i>European Physical Journal B</i> , <b>1999</b> , 9, 569-571	1.2	9
18	Influence of temporal surface effects on the asymptotic behaviour of the nucleation-and-growth phenomena in some biopolymeric systems. <i>Vacuum</i> , <b>1998</b> , 50, 79-83	3.7	6
17	Phase transformation kinetics in d-dimensional grains-containing systems: diffusion-type model. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>1998</b> , 248, 365-378	3.3	11
16	A Simple Phenomenological Model of the Stress Relaxation in Slowly Evolving 3D Polycrystalline Materials. <i>Modern Physics Letters B</i> , <b>1997</b> , 11, 645-657	1.6	8
15	Description of the kinetics of a model tribopolymerization process. <i>Journal of Mathematical Chemistry</i> , <b>1997</b> , 22, 161-183	2.1	3
14	Phenomenological Description for a Formation of Cylindrolites in Co-Operative and Dynamic 2D-(Bio)Polymeric Systems. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , <b>1996</b> , 100, 134-137		8
13	Stochastic approach to the evolution of some polycrystalline (bio) polymeric complex systems. <i>Chemical Physics Letters</i> , <b>1996</b> , 258, 6-12	2.5	14
12	Stretched Exponential Kinetics of the Pressure Induced Hydration of Model Lipid Membranes. A Possible Scenario. <i>Journal De Physique II</i> , <b>1996</b> , 6, 1537-1546		7
11	Diffusion-migration concept applied to growth and structure formation in model biomembranes. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1995</b> , 203, 367-372	2.3	7
10	Diffusion of clusters with randomly growing masses. <i>Physical Review E</i> , <b>1995</b> , 51, 5762-5769	2.4	25
9	Non-Markovian process driven by quadratic noise: Kramers-Moyal expansion and Fokker-Planck modeling. <i>Physical Review E</i> , <b>1995</b> , 51, 2933-2938	2.4	24

- 8 On thermal properties of poly(4-methyl-1-pentene) membranes cast from solution. *Journal of Thermal Analysis*, **1995**, 45, 1175-1181 8
- 7 A critical discussion of the analytical approach to the normal grain growth of materials in a D-dimensional space with some possible extensions to other growth phenomena. *Philosophical Magazine Letters*, **1994**, 70, 335-343 1 14
- 6 On anomalous diffusion of fractal clusters under certain realistic physical conditions. *Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics*, **1994**, 16, 1265-1270 3
- 5 Scaling concept applied to the defect formation caused by interactions between melittin and phosphatidylcholine (PC) model membranes. *Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics*, **1994**, 16, 1551-1557
- 4 Some remarks concerning spherulitic growth. *International Journal of Quantum Chemistry*, **1994**, 52, 301-308 10
- 3 ON ANOMALOUS DIFFUSION OF GROWING CLUSTERS. *Fractals*, **1993**, 01, 875-880 3.2 6
- 2 The growing processes in diffusive and convective fields. *Chemical Engineering Science*, **1993**, 48, 3713-3721 13
- 1 On the diffusion-driven growth: The perturbed sphere problem revisited. *European Physical Journal D*, **1992**, 42, 577-590 6