Adam Gadomski

List of Publications by Citations

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	Thermokinetic approach of single particles and clusters involving anomalous diffusion under viscoelastic response. *Journal of Physical Chemistry B*, **2007**, 111, 2293-8	3.4	30
78	Diffusion of clusters with randomly growing masses. *Physical Review E*, **1995**, 51, 5762-5769	2.4	25
77	Non-Markovian process driven by quadratic noise: Kramers-Moyal expansion and Fokker-Planck modeling. *Physical Review E*, **1995**, 51, 2933-2938	2.4	24
76	Hyaluronic acid and phospholipid interactions useful for repaired articular cartilage surfaces-a mini review toward tribological surgical adjuvants. *Colloid and Polymer Science*, **2017**, 295, 403-412	2.4	22
75	A Kinetic Model of Protein Crystal Growth in Mass Convection Regime. *Crystal Research and Technology*, **2002**, 37, 281-291	1.3	22
74	Nonequilibrium thermodynamics versus model grain growth: derivation and some physical implications. *Physica A: Statistical Mechanics and Its Applications*, **2003**, 326, 333-343	3.3	22
73	MULTILINEAL RANDOM PATTERNS EVOLVING SUBDIFFUSIVELY IN SQUARE LATTICE. *Fractals*, **2003**, 11, 233-241	3.2	21
72	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. *Tribology International*, **2010**, 43, 1719-1725	4.9	20
71	On the two principal curvatures as potential barriers in a model of complex matter agglomeration. *Chemical Physics*, **2003**, 293, 169-177	2.3	20
70	Molecular Dynamic Analysis of Hyaluronic Acid and Phospholipid Interaction in Tribological Surgical Adjuvant Design for Osteoarthritis. *Molecules*, **2017**, 22,	4.8	19
69	Some conceptual thoughts toward nanoscale oriented friction in a model of articular cartilage. *Mathematical Biosciences*, **2013**, 244, 188-200	3.9	18
68	Physical crosslinking of hyaluronic acid in the presence of phospholipids in an aqueous nano-environment. *Soft Matter*, **2018**, 14, 8997-9004	3.6	17
67	Kinetic–thermodynamic effects accompanying model protein-like aggregation: The wave-like limit and beyond it. *Physica A: Statistical Mechanics and Its Applications*, **2007**, 373, 43-57	3.3	14
66	Stochastic approach to the evolution of some polycrystalline (bio) polymeric complex systems. *Chemical Physics Letters*, **1996**, 258, 6-12	2.5	14
65	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
64	Directed Ion Transport as Virtual Cause of Some Facilitated Friction–Lubrication Mechanism Prevailing in Articular Cartilage: A Hypothesis. *Tribology Letters*, **2008**, 30, 83-90	2.8	13
63	On the crystalline-amorphous supermolecular structure of poly(4-methyl-1-pentene) films cast from solution: experimental evidences and theoretical remarks. *Journal of Molecular Liquids*, **2000**, 86, 249-257	6	13

62	The growing processes in diffusive and convective fields. *Chemical Engineering Science*, **1993**, 48, 3713-3721	4.1	13
61	On temperature- and space-dimension dependent matter agglomerations in a mature growing stage. *Chemical Physics*, **2005**, 310, 153-161	2.3	12
60	The role of lamellate phospholipid bilayers in lubrication of joints. *Acta of Bioengineering and Biomechanics*, **2012**, 14, 101-6	0.6	12
59	Phase transformation kinetics in d-dimensional grains-containing systems: diffusion-type model. *Physica A: Statistical Mechanics and Its Applications*, **1998**, 248, 365-378	3.3	11
58	The amphoteric effect on friction between the bovine cartilage/cartilage surfaces under slightly sheared hydration lubrication mode. *Colloids and Surfaces B: Biointerfaces*, **2016**, 146, 452-8	6	11
57	Anomalous Behavior of Hyaluronan Crosslinking Due to the Presence of Excess Phospholipids in the Articular Cartilage System of Osteoarthritis. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	10
56	Polymorphic phase transitions in systems evolving in a two-dimensional discrete space. *Physical Review E*, **1999**, 60, 1252-61	2.4	10
55	Some remarks concerning spherulitic growth. *International Journal of Quantum Chemistry*, **1994**, 52, 301-308	2.0	10
54	Controlling protein crystal growth rate by means of temperature. *Journal of Physics Condensed Matter*, **2011**, 23, 235101	1.8	9
53	Nucleation-and-growth problem in model lipid membranes undergoing subgel phase transitions is a problem of time scale. *European Physical Journal B*, **1999**, 9, 569-571	1.2	9
52	A Simple Phenomenological Model of the Stress Relaxation in Slowly Evolving 3D Polycrystalline Materials. *Modern Physics Letters B*, **1997**, 11, 645-657	1.6	8
51	On the protein crystal formation as an interface-controlled process with prototype ion-channeling effect. *Journal of Biological Physics*, **2007**, 33, 313-29	1.6	8
50	COMPUTER MODEL OF BIOPOLYMER CRYSTAL GROWTH AND AGGREGATION BY ADDITION OF MACROMOLECULAR UNITS A COMPARATIVE STUDY. *International Journal of Modern Physics C*, **2006**, 17, 1037-1053	1.1	8
49	Phenomenological Description for a Formation of Cylindrolites in Co-Operative and Dynamic 2D-(Bio)Polymeric Systems. *Zeitschrift Fur Elektrotechnik Und Elektrochemie*, **1996**, 100, 134-137		8
48	On thermal properties of poly(4-methyl-1-pentene) membranes cast from solution. *Journal of Thermal Analysis*, **1995**, 45, 1175-1181		8
47	The Anomalies of Hyaluronan Structures in Presence of Surface Active Phospholipids-Molecular Mass Dependence. *Polymers*, **2018**, 10,	4.5	7
46	On the elastic contribution to crystal growth in complex environments. *Physica Status Solidi (B): Basic Research*, **2005**, 242, 538-549	1.3	7
45	On the kinetics of polymer crystallization: a possible mechanism. *Journal of Molecular Liquids*, **2000**, 86, 237-247	6	7

44	Diffusion-migration concept applied to growth and structure formation in model biomembranes. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1995**, 203, 367-372	2.3	7
43	Stretched Exponential Kinetics of the Pressure Induced Hydration of Model Lipid Membranes. A Possible Scenario. *Journal De Physique II*, **1996**, 6, 1537-1546		7
42	Influence of temporal surface effects on the asymptotic behaviour of the nucleation-and-growth phenomena in some biopolymeric systems. *Vacuum*, **1998**, 50, 79-83	3.7	6
41	COMPUTER MODEL OF A LYSOZYME CRYSTAL GROWTH WITH/WITHOUT NANOTEMPLATE – A COMPARISON. *International Journal of Modern Physics C*, **2006**, 17, 1359-1366	1.1	6
40	Finite volume effects in a model grain growth. *Physica A: Statistical Mechanics and Its Applications*, **2003**, 325, 284-291	3.3	6
39	Fractal-type relations and extensions suitable for systems of evolving polycrystalline microstructures. *Physica A: Statistical Mechanics and Its Applications*, **1999**, 274, 325-332	3.3	6
38	ON ANOMALOUS DIFFUSION OF GROWING CLUSTERS. *Fractals*, **1993**, 01, 875-880	3.2	6
37	On the diffusion-driven growth: The perturbed sphere problem revisited. *European Physical Journal D*, **1992**, 42, 577-590		6
36	Ranking structures and rank–rank correlations of countries: The FIFA and UEFA cases. *International Journal of Modern Physics C*, **2014**, 25, 1450060	1.1	5
35	Primacy and ranking of UEFA soccer teams from biasing organization rules. *Physica Scripta*, **2014**, 89, 108002	2.6	5
34	On morphological selection rule of noisy character applied to model (dis)orderly protein formations. *Journal of Chemical Physics*, **2010**, 132, 195103	3.9	5
33	Simple example of structure versus property relationship applied to a reduced-friction biosystem, a quite personal opinion. *BioSystems*, **2008**, 94, 215-7	1.9	5
32	Toward a Governing Mechanism of Nanoscale Articular Cartilage (Physiologic) Lubrication: Smoluchowski-type Dynamics in Amphiphile Proton Channels. *Acta Physica Polonica B*, **2013**, 44, 1801	1.9	4
31	Comment on "How skew distributions emerge in evolving systems" by Choi M. Y. et al.. *Europhysics Letters*, **2010**, 89, 40002	1.6	4
30	Capstan-like mechanism in hyaluronan-phospholipid systems. *Chemistry and Physics of Lipids*, **2018**, 216, 17-24	3.7	3
29	Thermodiffusion as a close-to-interface effect that matters in non-isothermal (dis)orderly protein aggregations. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2014**, 378, 2881-2887	2.3	3
28	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. *Osteoarthritis and Cartilage*, **2014**, 22, S312-S313	6.2	3
27	Description of the kinetics of a model tribopolymerization process. *Journal of Mathematical Chemistry*, **1997**, 22, 161-183	2.1	3

26	On the spherical prototype of a complex dissipative late-stage formation seen in terms of least action Vojta-Natanson principle. *BioSystems*, **2008**, 94, 242-7	1.9	3
25	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
24	Multilevel-interaction friction procedure applicable in case of two opposing surfaces competing with one another□A gedanken experiment. *Physics Essays*, **2015**, 28, 650-653	1.1	3
23	Entropy Production Associated with Aggregation into Granules in a Subdiffusive Environment. *Entropy*, **2018**, 20,	2.8	3
22	Agglomeration/Aggregation and Chaotic Behaviour in d-Dimensional Spatio-Temporal Matter Rearrangements Number-Theoretic Aspects **2006**, 275-294		3
21	On the origin of the phase□space diffusion limit in (dis)ordered protein aggregation. *Physica A: Statistical Mechanics and Its Applications*, **2013**, 392, 3155-3167	3.3	2
20	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. *Biophysics (Russian Federation)*, **2015**, 60, 992-996	0.7	2
19	A Method of Mechanical Control of Structure-property Relationship in Grains-containing Material Systems. *Acta Physica Polonica B*, **2013**, 44, 1049	1.9	2
18	Supermolecular structure formation of PMP membranes: Theoretical argumentation in terms of the experimental evidences. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2009**, 163, 105-113	3.1	2
17	Revealing sol□gel type main effects by exploring a molecular cluster behavior in model in-plane amphiphilic aggregations. *Physica A: Statistical Mechanics and Its Applications*, **2010**, 389, 3053-3068	3.3	2
16	Growing lysozyme crystals under various physicochemical conditions: Computer modelling. *Journal of Non-Crystalline Solids*, **2008**, 354, 4221-4226	3.9	2
15	On the formation of crystalline microstructures of monolayers seen in terms of qualitative diffusion-type models at mesoscale. *Technical Physics Letters*, **2008**, 34, 803-805	0.7	2
14	Shape Change of Micelles Dragged with Constant Velocity as Addressed in Terms of Biolubrication Application. *Acta Physica Polonica A*, **2016**, 129, 188-189	0.6	2
13	Derivation of the refractive index of lipid monolayers at an air-water interface. *Optical Materials*, **2019**, 93, 1-5	3.3	1
12	Three types of computational soft-matter problems revisited, an own-selection-based opinion. *Frontiers in Physics*, **2014**, 2,	3.9	1
11	CURVATURE EFFECTS IN CLUSTERS GROWN IN A 2D DISCRETE SPACE: AN ALGEBRAIC APPROACH. *International Journal of Modern Physics C*, **2002**, 13, 1285-1299	1.1	1
10	On the Harmonic-Mean Property of Model Dispersive Systems Emerging Under Mononuclear, Mixed and Polynuclear Path Conditions **2007**, 283-296		1
9	Temperature dependent volume expansion of microgel in nonequilibria. *European Physical Journal B*, **2018**, 91, 1	1.2	1

8	Stochastic Evolution of a Discrete Line: Numerical Results **2000**, 496-506		1
7	On (sub)mesoscopic scale peculiarities of diffusion driven growth in an active matter confined space, and related (bio)material realizations. *BioSystems*, **2019**, 176, 56-58	1.9	0
6	Spherulites: How Do They Emerge at an Onset of Nonequilibrium Kinetic-Thermodynamic and Structural Singularity Addressing Conditions?. *Entropy*, **2022**, 24, 663	2.8	0
5	Soft-Material Dissipative Formation by a Kramers-Type Picture. *Research Letters in Materials Science* , **2007**, 2007, 1-4		
4	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		
3	Fractional Calculus Evaluation of Hyaluronic Acid Crosslinking in a Nanoscopic Part of Articular Cartilage Model System. *Springer Proceedings in Mathematics and Statistics*, **2018**, 25-35	0.2	
2	Note on Appearance of Zigzak Type Self Similarity in Flying Bird Flocks Performing Directional Collective Motions in Mild-Weather Conditions. *Current Topics in Biophysics*, **2018**, 41, 5-9	0	
1	Micelle Confined in Aqueous Environment: Lubrication at the Nanoscale and Its Nonlinear Characteristics. *Springer Proceedings in Mathematics and Statistics*, **2016**, 73-80	0.2	