Zbigniew Postawa

List of Publications by Year
in descending order

114	2,250	236925 25	254184 43
papers	citations	h-index	g-index

124	124	124	841
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhancement of Sputtering Yields Due to C60versus Ga Bombardment of Ag{111} As Explored by Molecular Dynamics Simulations. Analytical Chemistry, 2003, 75, 4402-4407.	6.5	194
2	Microscopic Insights into the Sputtering of Ag{111} Induced by C60and Ga Bombardment. Journal of Physical Chemistry B, 2004, 108, 7831-7838.	2.6	182
3	Computational view of surface based organic mass spectrometry. Mass Spectrometry Reviews, 2008, 27, 289-315.	5.4	139
4	Microscopic Insights into the Sputtering of Thin Organic Films on Ag{111} Induced by C60 and Ga Bombardment. Journal of Physical Chemistry B, 2005, 109, 11973-11979.	2.6	88
5	Improvements in SIMS continue. Applied Surface Science, 2006, 252, 6836-6843.	6.1	68
6	Molecular Dynamics Simulation Study of Molecular Ejection Mechanisms:Â keV Particle Bombardment of C6H6/Ag{111}. Journal of Physical Chemistry B, 1999, 103, 151-163.	2.6	64
7	Microscopic Insight into the Sputtering of Thin Polystyrene Films on Ag{111} Induced by Large and Slow Ar Clusters. Journal of Physical Chemistry C, 2008, 112, 521-531.	3.1	53
8	Coarse-grained molecular dynamics studies of cluster-bombarded benzene crystals. Applied Surface Science, 2006, 252, 6436-6439.	6.1	52
9	Internal Energy of Molecules Ejected Due to Energetic C₆₀ Bombardment. Analytical Chemistry, 2009, 81, 2260-2267.	6.5	50
10	Phase decomposition in polymer blend films cast on substrates patterned with self-assembled monolayers. Vacuum, 2001, 63, 307-313.	3.5	47
11	Angular distribution of Rh atoms desorbed from ion-bombarded Rh{100}: Effect of local environment. Physical Review B, 1990, 42, 7311-7316.	3.2	39
12	A Computational Investigation of C60 Depth Profiling of Ag: Molecular Dynamics of Multiple Impact Events. Journal of Physical Chemistry C, 2009, 113, 3270-3276.	3.1	39
13	Electron-stimulated desorption from ionic crystal surfaces. Progress in Surface Science, 1995, 48, 83-96.	8.3	38
14	Desorption of organic overlayers by Ga and C60 bombardment. Vacuum, 2006, 81, 167-173.	3.5	38
15	Dynamics of large Ar cluster bombardment of organic solids. Surface and Interface Analysis, 2013, 45, 35-38.	1.8	38
16	Mechanistic study of atomic desorption resulting from the keV-ion bombardment of fcc{001} single-crystal metals. Physical Review B, 1995, 52, 6006-6014.	3.2	37
17	Effect of impact angle and projectile size on sputtering efficiency of solid benzene investigated by molecular dynamics simulations. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1578-1581.	1.4	35
18	CO₂ Cluster Ion Beam, an Alternative Projectile for Secondary Ion Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2016, 27, 1476-1482.	2.8	35

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19	Thermal Desorption Induced by Kiloelectronvolt Ion Bombardment of Thiol-Bound Self-Assembled Monolayers on Gold. Journal of the American Chemical Society, 1997, 119, 8089-8094.	13.7	34
20	Modification and Stability of Aromatic Self-Assembled Monolayers upon Irradiation with Energetic Particles. Journal of Physical Chemistry B, 2005, 109, 5085-5094.	2.6	32
21	Band Structure Effects in Ejection of Ni Atoms in Fine Structure States. Physical Review Letters, 1995, 75, 3950-3953.	7.8	30
22	Directional emission of nonthermal halogen atoms by electron bombardment of alkali halides. Physical Review B, 1989, 39, 12950-12953.	3.2	27
23	Development of a Charge-Implicit ReaxFF Potential for Hydrocarbon Systems. Journal of Physical Chemistry Letters, 2018, 9, 359-363.	4.6	27
24	Sputtering of atoms in fine structure states: a probe of excitation and de-excitation events. Rapid Communications in Mass Spectrometry, 1998, 12, 1266-1272.	1.5	26
25	Molecular Dynamics Study of the Effect of Surface Topography on Sputtering Induced by 20 keV Au₃ and C₆₀ Clusters. Journal of Physical Chemistry C, 2010, 114, 5532-5539.	3.1	26
26	Substructure formation during pattern transposition from substrate into polymer blend film. Europhysics Letters, 2003, 62, 855-861.	2.0	25
27	Electronic and nuclear effects in ionâ€induced desorption from NaCl{100}. Journal of Chemical Physics, 1992, 96, 3298-3305.	3.0	24
28	Spectroscopic behavior of halogen photodesorption from alkali halidesunder UV and VUV excitation. Physical Review B, 1997, 55, 5448-5454.	3.2	24
29	Energyâ€and angleâ€resolved measurements of the Rh(4F9/2) and Rh(4F7/2) populations from ion bombarded Rh{100}. Journal of Chemical Physics, 1992, 96, 6314-6317.	3.0	23
30	Angleâ€resolved velocity distributions of excited Rh atoms ejected from ionâ€bombarded Rh{100}. Journal of Chemical Physics, 1992, 97, 3846-3854.	3.0	23
31	Fluid Flow and Effusive Desorption: Dominant Mechanisms of Energy Dissipation after Energetic Cluster Bombardment of Molecular Solids. Journal of Physical Chemistry Letters, 2011, 2, 2009-2014.	4.6	23
32	Coverage-Dependent Molecular Ejection from Ion-Bombarded C6H6/Ag{111}. Journal of Physical Chemistry B, 1998, 102, 4176-4182.	2.6	22
33	Sputtering of thin benzene and polystyrene overlayers by keV Ga and C60 bombardment. Applied Surface Science, 2006, 252, 6419-6422.	6.1	22
34	Erosion of Ag surface by continuous irradiation with slow, large Ar clusters. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1586-1590.	1.4	22
35	Depth profiling by cluster projectiles as seen by computer simulations. Surface and Interface Analysis, 2011, 43, 12-15.	1.8	22
36	Phase decomposition in polymer blend films cast on homogeneous substrates modified by self-assembled monolayers. Vacuum, 2001, 63, 297-305.	3.5	21

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37	Molecular dynamics study of polystyrene bond-breaking and crosslinking under C60 and Arn cluster bombardment. Nuclear Instruments & Methods in Physics Research B, 2013, 303, 23-27.	1.4	18
38	Seduction of Finding Universality in Sputtering Yields Due to Cluster Bombardment of Solids. Accounts of Chemical Research, 2015, 48, 2529-2536.	15.6	18
39	Sputtering of alkali halides studied by a mass selected time of flight spectroscopy. Radiation Effects and Defects in Solids, 1989, 109, 189-202.	1.2	17
40	On Universality in Sputtering Yields Due to Cluster Bombardment. Journal of Physical Chemistry Letters, 2014, 5, 3227-3230.	4.6	17
41	Oscillations in the Stability of Consecutive Chemical Bonds Revealed by Ionâ€Induced Desorption. Angewandte Chemie - International Edition, 2015, 54, 1336-1340.	13.8	17
42	Molecular Dynamics Simulations of Sputtering of Langmuirâ^'Blodgett Multilayers by Kiloelectronvolt C₆₀ Projectiles. Journal of Physical Chemistry C, 2009, 113, 5641-5648.	3.1	14
43	Steady-State Statistical Sputtering Model for Extracting Depth Profiles from Molecular Dynamics Simulations of Dynamic SIMS. Journal of Physical Chemistry C, 2012, 116, 1042-1051.	3.1	14
44	Physical basis of energy per cluster atom in the universal concept of sputtering. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	1.2	14
45	Temperature dependence of polar-angle distributions of atoms ejected from ion-bombarded Au{111}. Physical Review B, 1996, 53, 2378-2384.	3.2	13
46	Energetic Ion-Stimulated Desorption of Physisorbed Molecules. Journal of Physical Chemistry B, 2002, 106, 12929-12937.	2.6	13
47	Molecular dynamics simulations of sputtering of organic overlayers by slow, large clusters. Applied Surface Science, 2008, 255, 841-843.	6.1	13
48	Sputtering of thin films of bariated molecules of arachidic acid by large noble gas clusters. Vacuum, 2009, 83, S155-S158.	3.5	13
49	Effect of sample rotation on surface roughness with keV C60 bombardment in secondary ion mass spectrometry (SIMS) experiments. Chemical Physics Letters, 2011, 506, 129-134.	2.6	13
50	Quadratic Friction Model for Cluster Bombardment of Molecular Solids. Journal of Physical Chemistry C, 2007, 111, 10135-10137.	3.1	12
51	Combined simulations and analytical model for predicting trends in cluster bombardment. Applied Surface Science, 2008, 255, 897-900.	6.1	12
52	Oddâ€Even Effects in Ionâ€Beamâ€Induced Desorption of Biphenylâ€Substituted Alkanethiol Selfâ€Assembled Monolayers. ChemPhysChem, 2011, 12, 140-144.	2.1	12
53	Photon stimulated desorption from alkali halide surfaces at near threshold energies. Surface Science, 1996, 363, 229-233.	1.9	11
54	Molecular dynamics computer simulations of 5keV C60 bombardment of benzene crystal. Vacuum, 2009, 83, S95-S98.	3.5	11

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55	Ejection of neutral molecules from ion-bombarded organic surfaces. , 1998, 12, 1226-1231.		10
56	Applications of fullerene beams in analysis of thin layers. Vacuum, 2008, 82, 1120-1123.	3.5	10
57	Partnering Analytic Models and Dynamic Secondary Ion Mass Spectrometry Simulations to Interpret Depth Profiles Due to Kiloelectronvolt Cluster Bombardment. Analytical Chemistry, 2012, 84, 3010-3016.	6.5	10
58	Computed Molecular Depth Profile for C₆₀ Bombardment of a Molecular solid. Analytical Chemistry, 2013, 85, 11628-11633.	6.5	10
59	Hypervelocity cluster ion impacts on free standing graphene: Experiment, theory, and applications. Journal of Chemical Physics, 2019, 150, 160901.	3.0	10
60	Energy and angular distributions of excited rhodium atoms ejected from the rhodium (100) surface. Physical Review B, 1991, 43, 12078-12081.	3.2	9
61	A comparison of electron-stimulated desorption of halogen atoms from different alkali-halide single-crystals. Radiation Effects and Defects in Solids, 1994, 128, 47-54.	1.2	9
62	Molecular Dynamics Simulations Elucidate the Synergy of C₆₀ and Low-Energy Ar Cobombardment for Molecular Depth Profiling. Journal of Physical Chemistry Letters, 2011, 2, 2635-2638.	4.6	9
63	Effect of Oxygen Chemistry in Sputtering of Polymers. Journal of Physical Chemistry Letters, 2016, 7, 1559-1562.	4.6	9
64	Crater function moments: Role of implanted noble gas atoms. Physical Review B, 2018, 97, .	3.2	9
65	Effect of kinetic energy and impact angle on carbon ejection from a free-standing graphene bombarded by kilo-electron-volt C60. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	1.2	9
66	Intuitive Model of Surface Modification Induced by Cluster Ion Beams. Analytical Chemistry, 2020, 92, 7349-7353.	6.5	9
67	Thermally assisted desorption processes in electron bombarded alkali halides. Vacuum, 1994, 45, 353-356.	3.5	8
68	Energyâ€resolved angular distributions and the population partition of excited state Rh atoms ejected from ion bombarded Rh {001}. Journal of Chemical Physics, 1994, 101, 6226-6232.	3.0	8
69	In situ observation of particle-induced desorption from a self-assembled monolayer by laser-ionization mass spectrometry. Applied Physics Letters, 2003, 82, 1114-1116.	3.3	8
70	Sputtering of a coarseâ€grained benzene and Ag(111) crystals by large Ar clusters â€“ effect of impact angle and cohesive energy. Surface and Interface Analysis, 2013, 45, 27-30.	1.8	8
71	Computer modeling of angular emission from Ag(100) and Mo(100) surfaces due to Arn cluster bombardment. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	1.2	8
72	C-O Bond Dissociation and Induced Chemical Ionization Using High Energy (CO2)n+ Gas Cluster Ion Beam. Journal of the American Society for Mass Spectrometry, 2019, 30, 476-481.	2.8	8

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73	Desorption of alkali halides stimulated by ion bombardment. Radiation Effects and Defects in Solids, 1994, 128, 107-125.	1.2	7
74	Desorption of neutral molecules from self-assembled monolayers subjected to keV ion bombardment. Applied Surface Science, 1999, 141, 339-344.	6.1	7
75	Phase-Dependent Desorption from Biphenyl-Substituted Alkanethiol Self-Assembled Monolayers Induced by Ion Irradiation. Journal of Physical Chemistry C, 2008, 112, 2248-2251.	3.1	7
76	An experimental and theoretical view of energetic C₆₀ cluster bombardment onto molecular solids. Surface and Interface Analysis, 2013, 45, 50-53.	1.8	7
77	Friction model to describe cluster bombardment. Applied Surface Science, 2008, 255, 893-896.	6.1	6
78	Computer simulations of sputtering and fragment formation during keV C₆₀ bombardment of octane and Î²â€carotene. Surface and Interface Analysis, 2014, 46, 3-6.	1.8	6
79	Micro- and Macroscopic Modeling of Sputter Depth Profiling. Journal of Physical Chemistry C, 2016, 120, 25473-25480.	3.1	6
80	Effect of substrate thickness on ejection of phenylalanine molecules adsorbed on free-standing graphene bombarded by 10 keV C60. Nuclear Instruments & Methods in Physics Research B, 2017, 393, 13-16.	1.4	5
81	â€œTrampolineâ€•ejection of organic molecules from graphene and graphite via keV cluster ions impacts. Journal of Chemical Physics, 2018, 148, 144309.	3.0	5
82	Effect of the Impact Angle on the Kinetic Energy and Angular Distributions of Î²-Carotene Sputtered by 15 keV Ar₂₀₀₀ Projectiles. Analytical Chemistry, 2019, 91, 9161-9167.	6.5	5
83	Mechanisms of particle ejection from free-standing two-layered graphene stimulated by keV argon gas cluster projectile bombardment â€“ Molecular dynamics study. Surface and Coatings Technology, 2020, 391, 125683.	4.8	5
84	Defect-mediated sputtering process of boron nitride during high incident angle low-energy ion bombardment. Measurement: Journal of the International Measurement Confederation, 2021, 179, 109487.	5.0	5
85	Effect of Sample Thickness on Carbon Ejection from Ultrathin Graphite Bombarded by keV C60. Acta Physica Polonica A, 2017, 132, 222-224.	0.5	5
86	Development of a Charge-Implicit ReaxFF for C/H/O Systems. Journal of Physical Chemistry Letters, 2022, 13, 628-633.	4.6	5
87	Internal Excitation Mechanisms of Neutral Atoms and Molecules Emitted from Ion Bombarded Organic Thin Films. Journal of Physical Chemistry B, 2004, 108, 15686-15693.	2.6	4
88	Modeling dynamic cluster SIMS experiments. Surface and Interface Analysis, 2013, 45, 14-17.	1.8	4
89	Combined molecular dynamics and analytical model for repetitive cluster bombardment of solids. Nuclear Instruments & Methods in Physics Research B, 2013, 303, 196-199.	1.4	4
90	Molecular Dynamics Simulations of Energetic Ar Cluster Bombardment of Ag(111). Acta Physica Polonica A, 2013, 123, 831-833.	0.5	4

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91	Sputtering of Benzene Sample by Large Ne, Ar and Kr Clusters - Molecular Dynamics Computer Simulations. Acta Physica Polonica A, 2013, 123, 825-827.	0.5	4
92	How material properties affect depth profiles â€“ insight from computer modeling. Surface and Interface Analysis, 2014, 46, 253-256.	1.8	4
93	Computer simulations of material ejection during C 60 and Ar m bombardment of octane and Î²-carotene. Nuclear Instruments & Methods in Physics Research B, 2015, 352, 202-205.	1.4	4
94	Sputtering of octatetraene by 15 keV C60 projectiles: Comparison of reactive interatomic potentials. Nuclear Instruments & Methods in Physics Research B, 2017, 393, 29-33.	1.4	4
95	Damage analysis of benzene induced by keV fullerene bombardment. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 1440-1443.	1.4	3
96	Mixed MD simulation â€“ analytical model analysis of Ag(111), C₆₀ repetitive bombardment in the context of depth profiling for dynamic SIMS. Surface and Interface Analysis, 2013, 45, 154-157.	1.8	3
97	Dynamics Displayed by Energetic C60Bombardment of Metal Overlayers on an Organic Substrate. Analytical Chemistry, 2013, 85, 2348-2355.	6.5	3
98	Molecular dynamics computer simulations of sputtering of benzene sample by large mixed Lennard-Jones clusters. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 185-189.	1.4	3
99	Three-Dimensional Mass Spectrometric Imaging of Biological Structures Using a Vacuum-Compatible Microfluidic Device. Analytical Chemistry, 2020, 92, 13785-13793.	6.5	3
100	Mechanisms of molecular emission from phenylalanine monolayer deposited on free-standing graphene bombarded by C60 projectiles. Applied Surface Science, 2021, 539, 148259.	6.1	3
101	State-selective laser photoionization of neutral benzene molecules ejected from keV ion bombarded C[sub 6]H[sub 6]/Ag{111}. , 1998, , .		2
102	Organic mass spectrometry with low-energy projectiles. Vacuum, 2007, 81, 1233-1237.	3.5	2
103	Temperature effects in the sputtering of a molecular solid by energetic atomic and cluster projectiles. Surface and Interface Analysis, 2011, 43, 78-80.	1.8	2
104	Correction to â€œOn Universality in Sputtering Yields Due to Cluster Bombardmentâ€• Journal of Physical Chemistry Letters, 2014, 5, 3435-3435.	4.6	2
105	MD-Based Transport and Reaction Model for the Simulation of SIMS Depth Profiles of Molecular Targets. Journal of Physical Chemistry C, 2019, 123, 20188-20194.	3.1	2
106	Material Deposition by a Soft-Landing of Mixed Ar Gas Cluster Projectiles at the Ag (111) Surface. Acta Physica Polonica A, 2019, 136, 260-262.	0.5	1
107	Electronic and Cascade Processes in Ion-Induced Sputtering of Alkali Halides. Physica Status Solidi A, 1989, 112, 431-435.	1.7	0
108	Angular and Energy Distributions of RH Atoms Desorbed in an Excited State from Ion-Bombarded Rh{100}. Materials Research Society Symposia Proceedings, 1990, 201, 87.	0.1	0

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109	Ion-induced emission of excited atoms from (100) surfaces of transition metal single crystals. Vacuum, 1995, 46, 605-608.	3.5	0
110	State-resolved study of keV sputtered neutral atoms by resonance ionization spectroscopy. AIP Conference Proceedings, 1995, , .	0.4	0
111	Desorption Mechanism of Benzene from C[sub 6]Hâ•Ag(111) using keV Ion Bombardment and Laser Postionization. , 1997, , .		0
112	Multiphoton Ionization of Ion-Beam and Laser Desorbed Molecules from Organic Surfaces. , 1997, , .		0
113	10.1063/1.5080606.1. , 2019, , .		0
114	10.1063/1.5080606.4. , 2019, , .		0