# 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 | Development of a Charge-Implicit ReaxFF for C/H/O Systems. Journal of Physical Chemistry Letters, 2022, 13, 628-633. | 4.6 | 5 |
| 2 | 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 |
| 3 | 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 |
| 4 | Three-Dimensional Mass Spectrometric Imaging of Biological Structures Using a Vacuum-Compatible Microfluidic Device. Analytical Chemistry, 2020, 92, 13785-13793. | 6.5 | 3 |
| 5 | 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 |
| 6 | Intuitive Model of Surface Modification Induced by Cluster Ion Beams. Analytical Chemistry, 2020, 92, 7349-7353. | 6.5 | 9 |
| 7 | 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 |
| 8 | Effect of the Impact Angle on the Kinetic Energy and Angular Distributions of Î²-Carotene Sputtered by 15 keV Ar<sub>2000</sub> Projectiles. Analytical Chemistry, 2019, 91, 9161-9167. | 6.5 | 5 |
| 9 | Hypervelocity cluster ion impacts on free standing graphene: Experiment, theory, and applications. Journal of Chemical Physics, 2019, 150, 160901. | 3.0 | 10 |
| 10 | 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 |
| 11 | 10.1063/1.5080606.1. , 2019, , . | | 0 |
| 12 | 10.1063/1.5080606.4. , 2019, , . | | 0 |
| 13 | 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 |
| 14 | Crater function moments: Role of implanted noble gas atoms. Physical Review B, 2018, 97, . | 3.2 | 9 |
| 15 | 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 |
| 16 | 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 |
| 17 | Development of a Charge-Implicit ReaxFF Potential for Hydrocarbon Systems. Journal of Physical Chemistry Letters, 2018, 9, 359-363. | 4.6 | 27 |
| 18 | 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 |

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|---|---|---|---|
| 19 | 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 |
| 20 | 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 |
| 21 | 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 |
| 22 | 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 |
| 23 | Effect of Oxygen Chemistry in Sputtering of Polymers. Journal of Physical Chemistry Letters, 2016, 7, 1559-1562. | 4.6 | 9 |
| 24 | Micro- and Macroscopic Modeling of Sputter Depth Profiling. Journal of Physical Chemistry C, 2016, 120, 25473-25480. | 3.1 | 6 |
| 25 | CO<sub>2</sub> 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 |
| 26 | 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 |
| 27 | Oscillations in the Stability of Consecutive Chemical Bonds Revealed by Ionâ€Induced Desorption. Angewandte Chemie - International Edition, 2015, 54, 1336-1340. | 13.8 | 17 |
| 28 | Seduction of Finding Universality in Sputtering Yields Due to Cluster Bombardment of Solids. Accounts of Chemical Research, 2015, 48, 2529-2536. | 15.6 | 18 |
| 29 | Correction to â€œOn Universality in Sputtering Yields Due to Cluster Bombardmentâ€. Journal of Physical Chemistry Letters, 2014, 5, 3435-3435. | 4.6 | 2 |
| 30 | On Universality in Sputtering Yields Due to Cluster Bombardment. Journal of Physical Chemistry Letters, 2014, 5, 3227-3230. | 4.6 | 17 |
| 31 | 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 |
| 32 | Computer simulations of sputtering and fragment formation during keV C<sub>60</sub> bombardment of octane and Î²â€carotene. Surface and Interface Analysis, 2014, 46, 3-6. | 1.8 | 6 |
| 33 | How material properties affect depth profiles â€“ insight from computer modeling. Surface and Interface Analysis, 2014, 46, 253-256. | 1.8 | 4 |
| 34 | Modeling dynamic cluster SIMS experiments. Surface and Interface Analysis, 2013, 45, 14-17. | 1.8 | 4 |
| 35 | Dynamics of large Ar cluster bombardment of organic solids. Surface and Interface Analysis, 2013, 45, 35-38. | 1.8 | 38 |
| 36 | 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 |

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|---|---|---|---|
| 37 | Mixed MD simulation â€“ analytical model analysis of Ag(111), C<sub>60</sub> repetitive bombardment in the context of depth profiling for dynamic SIMS. Surface and Interface Analysis, 2013, 45, 154-157. | 1.8 | 3 |
| 38 | An experimental and theoretical view of energetic C<sub>60</sub> cluster bombardment onto molecular solids. Surface and Interface Analysis, 2013, 45, 50-53. | 1.8 | 7 |
| 39 | Computed Molecular Depth Profile for C<sub>60</sub> Bombardment of a Molecular solid. Analytical Chemistry, 2013, 85, 11628-11633. | 6.5 | 10 |
| 40 | 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 |
| 41 | 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 |
| 42 | Dynamics Displayed by Energetic C60Bombardment of Metal Overlayers on an Organic Substrate. Analytical Chemistry, 2013, 85, 2348-2355. | 6.5 | 3 |
| 43 | Molecular Dynamics Simulations of Energetic Ar Cluster Bombardment of Ag(111). Acta Physica Polonica A, 2013, 123, 831-833. | 0.5 | 4 |
| 44 | 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 |
| 45 | 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 |
| 46 | 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 |
| 47 | Molecular Dynamics Simulations Elucidate the Synergy of C<sub>60</sub> and Low-Energy Ar Cobombardment for Molecular Depth Profiling. Journal of Physical Chemistry Letters, 2011, 2, 2635-2638. | 4.6 | 9 |
| 48 | 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 |
| 49 | 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 |
| 50 | 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 |
| 51 | Depth profiling by cluster projectiles as seen by computer simulations. Surface and Interface Analysis, 2011, 43, 12-15. | 1.8 | 22 |
| 52 | 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 |
| 53 | Oddâ€Even Effects in Ionâ€Beamâ€Induced Desorption of Biphenylâ€Substituted Alkanethiol Selfâ€Assembled Monolayers. ChemPhysChem, 2011, 12, 140-144. | 2.1 | 12 |
| 54 | 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 |

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|---|---|---|---|
| 55 | Molecular Dynamics Study of the Effect of Surface Topography on Sputtering Induced by 20 keV Au<sub>3</sub> and C<sub>60</sub> Clusters. Journal of Physical Chemistry C, 2010, 114, 5532-5539. | 3.1 | 26 |
| 56 | Damage analysis of benzene induced by keV fullerene bombardment. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 1440-1443. | 1.4 | 3 |
| 57 | Molecular dynamics computer simulations of 5keV C60 bombardment of benzene crystal. Vacuum, 2009, 83, S95-S98. | 3.5 | 11 |
| 58 | Sputtering of thin films of bariated molecules of arachidic acid by large noble gas clusters. Vacuum, 2009, 83, S155-S158. | 3.5 | 13 |
| 59 | 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 |
| 60 | Internal Energy of Molecules Ejected Due to Energetic C<sub>60</sub> Bombardment. Analytical Chemistry, 2009, 81, 2260-2267. | 6.5 | 50 |
| 61 | Molecular Dynamics Simulations of Sputtering of Langmuirâ"Blodgett Multilayers by Kiloelectronvolt C<sub>60</sub> Projectiles. Journal of Physical Chemistry C, 2009, 113, 5641-5648. | 3.1 | 14 |
| 62 | Molecular dynamics simulations of sputtering of organic overlayers by slow, large clusters. Applied Surface Science, 2008, 255, 841-843. | 6.1 | 13 |
| 63 | Computational view of surface based organic mass spectrometry. Mass Spectrometry Reviews, 2008, 27, 289-315. | 5.4 | 139 |
| 64 | Friction model to describe cluster bombardment. Applied Surface Science, 2008, 255, 893-896. | 6.1 | 6 |
| 65 | Applications of fullerene beams in analysis of thin layers. Vacuum, 2008, 82, 1120-1123. | 3.5 | 10 |
| 66 | Combined simulations and analytical model for predicting trends in cluster bombardment. Applied Surface Science, 2008, 255, 897-900. | 6.1 | 12 |
| 67 | 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 |
| 68 | 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 |
| 69 | Quadratic Friction Model for Cluster Bombardment of Molecular Solids. Journal of Physical Chemistry C, 2007, 111, 10135-10137. | 3.1 | 12 |
| 70 | Organic mass spectrometry with low-energy projectiles. Vacuum, 2007, 81, 1233-1237. | 3.5 | 2 |
| 71 | Coarse-grained molecular dynamics studies of cluster-bombarded benzene crystals. Applied Surface Science, 2006, 252, 6436-6439. | 6.1 | 52 |
| 72 | Improvements in SIMS continue. Applied Surface Science, 2006, 252, 6836-6843. | 6.1 | 68 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Sputtering of thin benzene and polystyrene overlayers by keV Ga and C60 bombardment. Applied Surface Science, 2006, 252, 6419-6422. | 6.1 | 22 |
| 74 | Desorption of organic overlayers by Ga and C60 bombardment. Vacuum, 2006, 81, 167-173. | 3.5 | 38 |
| 75 | 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 |
| 76 | 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 |
| 77 | 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 |
| 78 | 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 |
| 79 | 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 |
| 80 | 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 |
| 81 | Substructure formation during pattern transposition from substrate into polymer blend film. Europhysics Letters, 2003, 62, 855-861. | 2.0 | 25 |
| 82 | Energetic Ion-Stimulated Desorption of Physisorbed Molecules. Journal of Physical Chemistry B, 2002, 106, 12929-12937. | 2.6 | 13 |
| 83 | Phase decomposition in polymer blend films cast on homogeneous substrates modified by self-assembled monolayers. Vacuum, 2001, 63, 297-305. | 3.5 | 21 |
| 84 | Phase decomposition in polymer blend films cast on substrates patterned with self-assembled monolayers. Vacuum, 2001, 63, 307-313. | 3.5 | 47 |
| 85 | Desorption of neutral molecules from self-assembled monolayers subjected to keV ion bombardment. Applied Surface Science, 1999, 141, 339-344. | 6.1 | 7 |
| 86 | 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 |
| 87 | Ejection of neutral molecules from ion-bombarded organic surfaces. , 1998, 12, 1226-1231. | | 10 |
| 88 | 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 |
| 89 | Coverage-Dependent Molecular Ejection from Ion-Bombarded C6H6/Ag{111}. Journal of Physical Chemistry B, 1998, 102, 4176-4182. | 2.6 | 22 |
| 90 | State-selective laser photoionization of neutral benzene molecules ejected from keV ion bombarded C[sub 6]H[sub 6]/Ag{111}. , 1998, , . | | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Spectroscopic behavior of halogen photodesorption from alkali halidesunder UV and VUV excitation. Physical Review B, 1997, 55, 5448-5454. | 3.2 | 24 |
| 92 | Desorption Mechanism of Benzene from C[sub 6]Hâ•Ag(111) using keV Ion Bombardment and Laser Postionization. , 1997, , . | | 0 |
| 93 | 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 |
| 94 | Multiphoton Ionization of Ion-Beam and Laser Desorbed Molecules from Organic Surfaces. , 1997, , . | | 0 |
| 95 | Photon stimulated desorption from alkali halide surfaces at near threshold energies. Surface Science, 1996, 363, 229-233. | 1.9 | 11 |
| 96 | Temperature dependence of polar-angle distributions of atoms ejected from ion-bombarded Au{111}. Physical Review B, 1996, 53, 2378-2384. | 3.2 | 13 |
| 97 | Ion-induced emission of excited atoms from (100) surfaces of transition metal single crystals. Vacuum, 1995, 46, 605-608. | 3.5 | 0 |
| 98 | Electron-stimulated desorption from ionic crystal surfaces. Progress in Surface Science, 1995, 48, 83-96. | 8.3 | 38 |
| 99 | State-resolved study of keV sputtered neutral atoms by resonance ionization spectroscopy. AIP Conference Proceedings, 1995, , . | 0.4 | 0 |
| 100 | Band Structure Effects in Ejection of Ni Atoms in Fine Structure States. Physical Review Letters, 1995, 75, 3950-3953. | 7.8 | 30 |
| 101 | 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 |
| 102 | Desorption of alkali halides stimulated by ion bombardment. Radiation Effects and Defects in Solids, 1994, 128, 107-125. | 1.2 | 7 |
| 103 | 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 |
| 104 | Thermally assisted desorption processes in electron bombarded alkali halides. Vacuum, 1994, 45, 353-356. | 3.5 | 8 |
| 105 | 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 |
| 106 | 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 |
| 107 | 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 |
| 108 | Electronic and nuclear effects in ionâ€induced desorption from NaCl{100}. Journal of Chemical Physics, 1992, 96, 3298-3305. | 3.0 | 24 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Energy and angular distributions of excited rhodium atoms ejected from the rhodium (100) surface. Physical Review B, 1991, 43, 12078-12081. | 3.2 | 9 |
| 110 | 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 |
| 111 | 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 |
| 112 | Directional emission of nonthermal halogen atoms by electron bombardment of alkali halides. Physical Review B, 1989, 39, 12950-12953. | 3.2 | 27 |
| 113 | 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 |
| 114 | Electronic and Cascade Processes in Ion-Induced Sputtering of Alkali Halides. Physica Status Solidi A, 1989, 112, 431-435. | 1.7 | 0 |