

Eric I Altman

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.

70 papers	3,528 citations	28 h-index	59 g-index
79 ext. papers	3,804 ext. citations	7.4 avg, IF	5.28 L-index

#	Paper	IF	Citations
70	Scalable production of single 2D van der Waals layers through atomic layer deposition: bilayer silica on metal foils and films. <i>2D Materials</i> , 2022 , 9, 021003	5.9	1
69	Experimental and theoretical investigation of the formation of two-dimensional Fe silicate on Pd(111). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 062201	2.9	0
68	Ambient pressure x-ray photoelectron spectroscopy study of water formation and adsorption under two-dimensional silica and aluminosilicate layers on Pd(111). <i>Journal of Chemical Physics</i> , 2020 , 152, 084705	3.9	12
67	An atomically thin molecular aperture: two-dimensional gallium phosphate. <i>Nanoscale Horizons</i> , 2019 , 4, 667-673	10.8	6
66	Growth of ultrathin Ru oxide films on perovskite and corundum substrates. <i>Surface Science</i> , 2019 , 688, 51-62	1.8	2
65	Revealing surface-state transport in ultrathin topological crystalline insulator SnTe films. <i>APL Materials</i> , 2019 , 7, 051106	5.7	6
64	Hydrogen evolution activity tuning via two-dimensional electron accumulation at buried interfaces. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 20696-20705	13	8
63	Tuning two-dimensional phase formation through epitaxial strain and growth conditions: silica and silicate on NiPd(111) alloy substrates. <i>Nanoscale</i> , 2019 , 11, 21340-21353	7.7	5
62	Water chemistry on two-dimensional silicates studied by density functional theory and temperature-programmed desorption. <i>Surface Science</i> , 2019 , 679, 99-109	1.8	5
61	Structure of a Two-Dimensional Silicate Layer Formed by Reaction with an Alloy Substrate. <i>Chemistry of Materials</i> , 2019 , 31, 851-861	9.6	4
60	Quantifying Tip-Sample Interactions in Vacuum Using Cantilever-Based Sensors: An Analysis. <i>Physical Review Applied</i> , 2018 , 9,	4.3	15
59	Suppression of the spectral weight of topological surface states on the nanoscale via local symmetry breaking. <i>Physical Review Materials</i> , 2018 , 2,	3.2	3
58	Length Scale and Dimensionality of Defects in Epitaxial SnTe Topological Crystalline Insulator Films. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1601011	4.6	5
57	Epitaxial NiPd (111) Alloy Substrates with Continuously Tunable Lattice Constants for 2D Materials Growth. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 11266-11271	9.5	19
56	Growth of two dimensional silica and aluminosilicate bilayers on Pd(111): from incommensurate to commensurate crystalline. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 14001-14011	3.6	23
55	Group III Phosphates as Two-Dimensional van der Waals Materials. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 16328-16341	3.8	7
54	Suppression of Magnetoresistance in Thin WTe Flakes by Surface Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 23175-23180	9.5	29

53	Using ZnO-CrO-ZnO heterostructures to characterize polarization penetration depth through non-polar films. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 32492-32504	3.6	2
52	Role of double TiO ₂ layers at the interface of FeSe/SrTiO ₃ superconductors. <i>Physical Review B</i> , 2016 , 93,	3.3	35
51	Surface phase, morphology, and charge distribution transitions on vacuum and ambient annealed SrTiO ₃ (100). <i>Physical Review B</i> , 2016 , 93,	3.3	31
50	Directing the Structure of Two-Dimensional Silica and Silicates. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 26770-26781	3.8	28
49	Three-dimensional interaction force and tunneling current spectroscopy of point defects on rutile TiO ₂ (110). <i>Applied Physics Letters</i> , 2016 , 108, 071601	3.4	17
48	A highly active and stable hydrogen evolution catalyst based on pyrite-structured cobalt phosphosulfide. <i>Nature Communications</i> , 2016 , 7, 10771	17.4	363
47	Robust high-resolution imaging and quantitative force measurement with tuned-oscillator atomic force microscopy. <i>Nanotechnology</i> , 2016 , 27, 065703	3.4	16
46	Ferroelectrics: A pathway to switchable surface chemistry and catalysis. <i>Surface Science</i> , 2016 , 650, 302-316	3.5	94
45	Simultaneous Measurement of Multiple Independent Atomic-Scale Interactions Using Scanning Probe Microscopy: Data Interpretation and the Effect of Cross-Talk. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 6670-6677	3.8	8
44	The modification of ferroelectric LiNbO ₃ (0001) surfaces using chromium oxide thin films. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 9488-98	3.6	12
43	Metal/Oxide Interface Nanostructures Generated by Surface Segregation for Electrocatalysis. <i>Nano Letters</i> , 2015 , 15, 7704-10	11.5	186
42	Noncontact Atomic Force Microscopy: An Emerging Tool for Fundamental Catalysis Research. <i>Accounts of Chemical Research</i> , 2015 , 48, 2640-8	24.3	28
41	An X-ray photoelectron spectroscopy study of BF ₃ adsorption on positively and negatively poled LiNbO ₃ (0001). <i>Surface Science</i> , 2014 , 626, 53-60	1.8	10
40	Imaging the buried MgO/Ag interface: Formation mechanism of the STM contrast. <i>Physical Review B</i> , 2014 , 90,	3.3	9
39	Formation and atomic structure of ordered Sr-induced nanostrips on Ge(100). <i>Physical Review B</i> , 2014 , 89,	3.3	6
38	Structural and Electronic Heterogeneity of Two Dimensional Amorphous Silica Layers. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1400108	4.6	20
37	Understanding scanning tunneling microscopy contrast mechanisms on metal oxides: a case study. <i>ACS Nano</i> , 2013 , 7, 10233-44	16.7	41
36	Atom-specific forces and defect identification on surface-oxidized Cu(100) with combined 3D-AFM and STM measurements. <i>Physical Review B</i> , 2013 , 87,	3.3	32

35	Metallic-Glass Nanostructures: Tunable Hierarchical Metallic-Glass Nanostructures (Adv. Funct. Mater. 21/2013). <i>Advanced Functional Materials</i> , 2013 , 23, 2784-2784	15.6	2
34	Tunable Hierarchical Metallic-Glass Nanostructures. <i>Advanced Functional Materials</i> , 2013 , 23, 2708-2713	15.6	44
33	Growth and Characterization of Crystalline Silica Films on Pd(100). <i>Journal of Physical Chemistry C</i> , 2013 , 117, 26144-26155	3.8	45
32	Probing three-dimensional surface force fields with atomic resolution: Measurement strategies, limitations, and artifact reduction. <i>Beilstein Journal of Nanotechnology</i> , 2012 , 3, 637-50	3	23
31	Deciphering the atomic structure of a complex Sr/Ge (100) phase via scanning tunneling microscopy and first-principles calculations. <i>Physical Review B</i> , 2012 , 85,	3.3	12
30	Three-dimensional atomic force microscopy - taking surface imaging to the next level. <i>Advanced Materials</i> , 2010 , 22, 2838-53	24	58
29	Mechanisms, kinetics, and dynamics of oxidation and reactions on oxide surfaces investigated by scanning probe microscopy. <i>Advanced Materials</i> , 2010 , 22, 2854-69	24	25
28	Data acquisition and analysis procedures for high-resolution atomic force microscopy in three dimensions. <i>Nanotechnology</i> , 2009 , 20, 264002	3.4	26
27	Three-dimensional imaging of short-range chemical forces with picometre resolution. <i>Nature Nanotechnology</i> , 2009 , 4, 307-10	28.7	162
26	On the mechanism of the transition from surface to bulk metal oxides (A perspective on the article Mechanism of PdO thin film formation during the oxidation of Pd(1 1 1)). <i>Surface Science</i> , 2009 , 603, 2669-2670	1.8	5
25	Reactivity of Epitaxial Vanadia on TiO ₂ : Are Support Interactions Required for Reactivity?. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 2798-2805	3.8	16
24	Combined low-temperature scanning tunneling/atomic force microscope for atomic resolution imaging and site-specific force spectroscopy. <i>Review of Scientific Instruments</i> , 2008 , 79, 033704	1.7	58
23	Measurement of electronic structure at nanoscale solid-solid interfaces by surface-sensitive electron spectroscopy. <i>Applied Physics Letters</i> , 2008 , 92, 012118	3.4	4
22	Interfacial properties between CoO (100) and Fe ₃ O ₄ (100). <i>Physical Review B</i> , 2008 , 77,	3.3	14
21	The plasma oxidation of Pd(100). <i>Surface Science</i> , 2007 , 601, 3497-3505	1.8	23
20	Geometric and electronic structure of positively and negatively poled LiNbO ₃ (0 0 0 1) surfaces. <i>Surface Science</i> , 2007 , 601, 4636-4647	1.8	37
19	Using ferroelectric poling to change adsorption on oxide surfaces. <i>Journal of the American Chemical Society</i> , 2007 , 129, 15684-9	16.4	83
18	Steps on Fe ₃ O ₄ (100): STM measurements and theoretical calculations. <i>Physical Review B</i> , 2006 , 73,	3.3	12

17	Growth and structure of vanadium oxide on anatase (1 0 1) terraces. <i>Surface Science</i> , 2006 , 600, 2572-2580	1.8	19
16	Scanning tunneling microscopy study of Au growth on Ge(001): Bulk migration, self-organization, and clustering. <i>Surface Science</i> , 2005 , 596, 126-143	1.8	45
15	Synthesis of Monolayer-Capped GaAs Nanoparticles. <i>Materials Research Society Symposium Proceedings</i> , 2004 , 828, 233		
14	Synthesis and Characterization of Magnetic Iron Oxide Nanoparticles. <i>Materials Research Society Symposium Proceedings</i> , 2004 , 853, 37		
13	Growth of MoO ₃ films by oxygen plasma assisted molecular beam epitaxy. <i>Thin Solid Films</i> , 2002 , 414, 205-215	2.2	29
12	Formic Acid Adsorption on Anatase TiO ₂ (001) Thin Films Studied by NC-AFM and STM. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 8211-8222	3.4	78
11	CATALYTIC COMBUSTION OF METHANE OVER PALLADIUM-BASED CATALYSTS. <i>Catalysis Reviews - Science and Engineering</i> , 2002 , 44, 593-649	12.6	460
10	The oxidation mechanism of Pd(1 0 0). <i>Surface Science</i> , 2002 , 504, 253-270	1.8	135
9	Structure and chemical reactivity of adsorbed carboxylic acids on anatase TiO ₂ (001). <i>Surface Science</i> , 2002 , 506, 251-271	1.8	133
8	Contributions of Lattice Oxygen in Methane Combustion over PdO-Based Catalysts. <i>Journal of Catalysis</i> , 2001 , 203, 64-74	7.3	73
7	Effect of surface treatment on the WO ₃ (001) surface: A comprehensive study of oxidation and reduction by scanning tunneling microscopy and low-energy electron diffraction. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001 , 19, 1502-1509	2.9	27
6	Identification of Alcohol Dehydration Sites on an Oxide Surface by Scanning Tunneling Microscopy. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 12315-12323	3.4	24
5	Scanning tunneling microscopy study of halide nucleation, growth, and relaxation on singular and vicinal Cu surfaces. <i>Surface Science</i> , 1999 , 424, 244-261	1.8	21
4	Growth of Rh on Au(111): surface intermixing of immiscible metals. <i>Surface Science</i> , 1994 , 304, L400-L406	1.8	68
3	The interaction of C ₆₀ with noble metal surfaces. <i>Surface Science</i> , 1993 , 295, 13-33	1.8	182
2	Determination of the orientation of C ₆₀ adsorbed on Au(111) and Ag(111). <i>Physical Review B</i> , 1993 , 48, 18244-18249	3.3	222
1	Nucleation, growth, and structure of fullerene films on Au(111). <i>Surface Science</i> , 1992 , 279, 49-67	1.8	271