

# Alexei V Tivanski

## List of Publications by Year in descending order

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75  
papers

2,854  
citations

136950

32  
h-index

189892

50  
g-index

86  
all docs

86  
docs citations

86  
times ranked

3456  
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of Aerosols Containing Zn, Pb, and Cl from an Industrial Region of Mexico City. <i>Environmental Science &amp; Technology</i> , 2008, 42, 7091-7097.	10.0	143
2	Molecular Diversity of Sea Spray Aerosol Particles: Impact of Ocean Biology on Particle Composition and Hygroscopicity. <i>CheM</i> , 2017, 2, 655-667.	11.7	111
3	Size Matters in the Water Uptake and Hygroscopic Growth of Atmospherically Relevant Multicomponent Aerosol Particles. <i>Journal of Physical Chemistry A</i> , 2015, 119, 4489-4497.	2.5	110
4	Chemical bonding and structure of black carbon reference materials and individual carbonaceous atmospheric aerosols. <i>Journal of Aerosol Science</i> , 2007, 38, 573-591.	3.8	97
5	Oxygenated Interface on Biomass Burn Tar Balls Determined by Single Particle Scanning Transmission X-ray Microscopy. <i>Journal of Physical Chemistry A</i> , 2007, 111, 5448-5458.	2.5	94
6	Softening and Hardening of Macro- and Nano-Sized Organic Cocrystals in a Single-Crystal Transformation. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 8642-8646.	13.8	92
7	Nanocrystals of a Metal-Organic Complex Exhibit Remarkably High Conductivity that Increases in a Single-Crystal-to-Single-Crystal Transformation. <i>Journal of the American Chemical Society</i> , 2014, 136, 6778-6781.	13.7	92
8	Thixotropic Hydrogel Derived from a Product of an Organic Solid-State Synthesis: Properties and Densities of Metal-Organic Nanoparticles. <i>Journal of the American Chemical Society</i> , 2011, 133, 3365-3371.	13.7	91
9	Enrichment of Saccharides and Divalent Cations in Sea Spray Aerosol During Two Phytoplankton Blooms. <i>Environmental Science &amp; Technology</i> , 2016, 50, 11511-11520.	10.0	90
10	Chemical speciation of sulfur in marine cloud droplets and particles: Analysis of individual particles from the marine boundary layer over the California current. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	89
11	Hygroscopic Properties of Internally Mixed Particles Composed of NaCl and Water-Soluble Organic Acids. <i>Environmental Science &amp; Technology</i> , 2014, 48, 2234-2241.	10.0	88
12	Microscopic characterization of carbonaceous aerosol particle aging in the outflow from Mexico City. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 961-976.	4.9	85
13	Conjugated Thiol Linker for Enhanced Electrical Conduction of Gold-Molecule Contacts. <i>Journal of Physical Chemistry B</i> , 2005, 109, 5398-5402.	2.6	77
14	Semiconducting Organic Assemblies Prepared from Tetraphenylethylene Tetracarboxylic Acid and Bis(pyridine)s via Charge-Assisted Hydrogen Bonding. <i>Journal of the American Chemical Society</i> , 2011, 133, 8490-8493.	13.7	76
15	Nighttime chemical evolution of aerosol and trace gases in a power plant plume: Implications for secondary organic nitrate and organosulfate aerosol formation, NO <sub>3</sub> radical chemistry, and N <sub>2</sub> O <sub>5</sub> heterogeneous hydrolysis. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	67
16	Linking hygroscopicity and the surface microstructure of model inorganic salts, simple and complex carbohydrates, and authentic sea spray aerosol particles. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 21101-21111.	2.8	65
17	The Impact of Aerosol Particle Mixing State on the Hygroscopicity of Sea Spray Aerosol. <i>ACS Central Science</i> , 2015, 1, 132-141.	11.3	64
18	Particle formation from pulsed laser irradiation of soot aggregates studied with a scanning mobility particle sizer, a transmission electron microscope, and a scanning transmission x-ray microscope. <i>Applied Optics</i> , 2007, 46, 959.	2.1	62

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19	Spectroscopic Evidence of Keto-Enol Tautomerism in Deliquesced Malonic Acid Particles. <i>Journal of Physical Chemistry A</i> , 2011, 115, 4373-4380.	2.5	59
20	Investigation of the Assembly of Comb Block Copolymers in the Solid State. <i>Macromolecules</i> , 2008, 41, 7687-7694.	4.8	58
21	Humidity-dependent surface tension measurements of individual inorganic and organic submicrometre liquid particles. <i>Chemical Science</i> , 2015, 6, 3242-3247.	7.4	56
22	Synthesis, Optimization, and Performance Demonstration of Electrospun Carbon Nanofiber-Carbon Nanotube Composite Sorbents for Point-of-Use Water Treatment. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 11431-11440.	8.0	54
23	Heterogeneous ice nucleation and water uptake by field-collected atmospheric particles below 273 K. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	52
24	Quantifying the Hygroscopic Growth of Individual Submicrometer Particles with Atomic Force Microscopy. <i>Analytical Chemistry</i> , 2016, 88, 3647-3654.	6.5	50
25	Mechanical Properties of a Series of Macro- and Nanodimensional Organic Cocrystals Correlate with Atomic Polarizability. <i>Journal of the American Chemical Society</i> , 2015, 137, 12768-12771.	13.7	48
26	Ferrocenylundecanethiol Self-Assembled Monolayer Charging Correlates with Negative Differential Resistance Measured by Conducting Probe Atomic Force Microscopy. <i>Journal of the American Chemical Society</i> , 2005, 127, 7647-7653.	13.7	42
27	Direct Surface Tension Measurements of Individual Sub-Micrometer Particles Using Atomic Force Microscopy. <i>Journal of Physical Chemistry A</i> , 2017, 121, 8296-8305.	2.5	42
28	Hygroscopic Behavior of Individual Submicrometer Particles Studied by X-ray Spectromicroscopy. <i>Analytical Chemistry</i> , 2010, 82, 9289-9298.	6.5	38
29	Solid, Semisolid, and Liquid Phase States of Individual Submicrometer Particles Directly Probed Using Atomic Force Microscopy. <i>Analytical Chemistry</i> , 2017, 89, 12720-12726.	6.5	38
30	From co-crystals to functional thin films: photolithography using [2+2] photodimerization. <i>Chemical Science</i> , 2013, 4, 4304.	7.4	37
31	Vanillin-bioglass cross-linked 3D porous chitosan scaffolds with strong osteopromotive and antibacterial abilities for bone tissue engineering. <i>Carbohydrate Polymers</i> , 2021, 271, 118440.	10.2	37
32	Size-Dependent Mechanical Properties of a Metal-Organic Framework: Increase in Flexibility of ZIF-8 by Crystal Downsizing. <i>Nano Letters</i> , 2019, 19, 6140-6143.	9.1	36
33	Substrate-Deposited Sea Spray Aerosol Particles: Influence of Analytical Method, Substrate, and Storage Conditions on Particle Size, Phase, and Morphology. <i>Environmental Science &amp; Technology</i> , 2015, 49, 13447-13453.	10.0	35
34	Role of Organic Coatings in Regulating N <sub>2</sub> O <sub>5</sub> Reactive Uptake to Sea Spray Aerosol. <i>Journal of Physical Chemistry A</i> , 2015, 119, 11683-11692.	2.5	34
35	Correlating 3D Morphology, Phase State, and Viscoelastic Properties of Individual Substrate-Deposited Particles. <i>Analytical Chemistry</i> , 2019, 91, 7621-7630.	6.5	33
36	Adhesion Forces in Conducting Probe Atomic Force Microscopy. <i>Langmuir</i> , 2003, 19, 1929-1934.	3.5	30

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37	Organic Enrichment, Physical Phase State, and Surface Tension Depression of Nascent Core-Shell Sea Spray Aerosols during Two Phytoplankton Blooms. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 650-660.	2.7	29
38	Saccharide Transfer to Sea Spray Aerosol Enhanced by Surface Activity, Calcium, and Protein Interactions. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 2539-2548.	2.7	27
39	Lab on a tip: atomic force microscopy and photothermal infrared spectroscopy of atmospherically relevant organic/inorganic aerosol particles in the nanometer to micrometer size range. <i>Analyst</i> , The, 2018, 143, 2765-2774.	3.5	25
40	Fascin limits Myosin activity within Drosophila border cells to control substrate stiffness and promote migration. <i>ELife</i> , 2021, 10, .	6.0	25
41	Core and surface microgel mechanics are differentially sensitive to alternative crosslinking concentrations. <i>Soft Matter</i> , 2017, 13, 5684-5695.	2.7	23
42	Electromechanical Properties of Self-Assembled Monolayers of Tetrathiafulvalene Derivatives Studied by Conducting Probe Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2010, 114, 4429-4435.	3.1	22
43	Mechanical Properties and Photomechanical Fatigue of Macro- and Nanodimensional Diarylethene Molecular Crystals. <i>Nano Letters</i> , 2020, 20, 6744-6749.	9.1	22
44	Vibrational Mode Coupling to Ultrafast Electron Transfer in [(CN) <sub>5</sub> OsCNRu(NH <sub>3</sub> ) <sub>5</sub> ]-Studied by Femtosecond Infrared Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2003, 107, 9051-9058.	2.5	19
45	Effect of dry or wet substrate deposition on the organic volume fraction of core-shell aerosol particles. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 2033-2042.	3.1	19
46	Semiconductor Cocrystals Based on Boron: Generated Electrical Response with $\pi$ -Rich Aromatic Molecules. <i>Crystal Growth and Design</i> , 2020, 20, 3-8.	3.0	19
47	Atomic Force Microscopy: An Emerging Tool in Measuring the Phase State and Surface Tension of Individual Aerosol Particles. <i>Annual Review of Physical Chemistry</i> , 2021, 72, 235-252.	10.8	19
48	Physicochemical Mixing State of Sea Spray Aerosols: Morphologies Exhibit Size Dependence. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 1604-1611.	2.7	18
49	Reduced Extracellular Matrix Stiffness Prompts SH-SY5Y Cell Softening and Actin Turnover To Selectively Increase $\text{Al}^{2+}$ Endocytosis. <i>ACS Chemical Neuroscience</i> , 2019, 10, 1284-1293.	3.5	16
50	A Soft Mechanical Phenotype of SH-SY5Y Neuroblastoma and Primary Human Neurons Is Resilient to Oligomeric $\text{Al}^{2+}$ Injury. <i>ACS Chemical Neuroscience</i> , 2020, 11, 840-850.	3.5	16
51	Self-Assembled Enzymatic Monolayer Directly Bound to a Gold Surface: Activity and Molecular Recognition Force Spectroscopy Studies. <i>Journal of the American Chemical Society</i> , 2011, 133, 13284-13287.	13.7	13
52	Scanning x-ray microscopy investigations into the electron-beam exposure mechanism of hydrogen silsesquioxane resists. <i>Journal of Vacuum Science &amp; Technology B</i> , 2006, 24, 3048.	1.3	12
53	Mechanosensitive Endocytosis of High-Stiffness, Submicron Microgels in Macrophage and Hepatocarcinoma Cell Lines. <i>ACS Applied Bio Materials</i> , 2018, 1, 1254-1265.	4.6	12
54	Size-Dependent Morphology, Composition, Phase State, and Water Uptake of Nascent Submicrometer Sea Spray Aerosols during a Phytoplankton Bloom. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 116-130.	2.7	12

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55	The Sea Spray Chemistry and Particle Evolution study (SeaSCAPE): overview and experimental methods. <i>Environmental Sciences: Processes and Impacts</i> , 2022, 24, 290-315.	3.5	11
56	Determination of concentration and activity of immobilized enzymes. <i>Analytical Biochemistry</i> , 2015, 484, 169-172.	2.4	9
57	Surface Tension Measurements of Aqueous Liquid–Air Interfaces Probed with Microscopic Indentation. <i>Langmuir</i> , 2021, 37, 2457-2465.	3.5	9
58	Rigid Double-Stranded DNA Linkers for Single Molecule Enzyme–Drug Interaction Measurements Using Molecular Recognition Force Spectroscopy. <i>Langmuir</i> , 2020, 36, 4174-4183.	3.5	8
59	Remarkable decrease in stiffness of aspirin crystals upon reducing crystal size to nanoscale dimensions via sonochemistry. <i>CrystEngComm</i> , 2019, 21, 2049-2052.	2.6	7
60	Quantifying reaction spread and x-ray exposure sensitivity in hydrogen silsesquioxane latent resist patterns with x-ray spectromicroscopy. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010, 28, 1304-1313.	1.2	6
61	Platelet-derived Growth Factor- $\beta$ and Neuropilin-1 Mediate Lung Fibroblast Response to Rigid Collagen Fibers. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2020, 62, 454-465.	2.9	6
62	Probing the Water Uptake and Phase State of Individual Sucrose Nanoparticles Using Atomic Force Microscopy. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 2612-2620.	2.7	6
63	Atomic force microscopy study of photoreversible nanoscale surface relief grating patterns on side chain dendritic polyester thin films. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010, 360, 167-174.	4.7	5
64	A calibration curve for immobilized dihydrofolate reductase activity assay. <i>Data in Brief</i> , 2015, 4, 19-21.	1.0	5
65	Pressure-Induced Restructuring of a Monolayer Film Nanojunction Produces Threshold and Power Law Conduction. <i>Langmuir</i> , 2008, 24, 2288-2293.	3.5	4
66	Directly Probing the Phase States and Surface Tension of Individual Submicrometer Particles Using Atomic Force Microscopy. <i>ACS Symposium Series</i> , 2018, , 245-259.	0.5	4
67	Mechanical rigidity of a shape-memory metal–organic framework increases by crystal downsizing. <i>Chemical Communications</i> , 2021, 57, 89-92.	4.1	4
68	Mechanical cues protect against silica nanoparticle exposure in SH-SY5Y neuroblastoma. <i>Toxicology in Vitro</i> , 2021, 70, 105031.	2.4	4
69	Isotopic Insights into Organic Composition Differences between Supermicron and Submicron Sea Spray Aerosol. <i>Environmental Science &amp; Technology</i> , 2022, 56, 9947-9958.	10.0	4
70	Size Dependent Mechanical Properties and Photomechanical Fatigue of Diarylethene Molecular Crystals Using Atomic Force Microscopy. <i>Microscopy and Microanalysis</i> , 2020, 26, 2504-2505.	0.4	1
71	Nanomechanical variability in the early evolution of vertebrate dentition. <i>Scientific Reports</i> , 2022, 12, .	3.3	1
72	The role of adhesion forces in nanoscale measurements of the conductive properties of organic surfaces using conductive probe AFM. , 2004, , .		0

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73	Field and laboratory studies of reactions between atmospheric water soluble organic acids and inorganic particles. , 2013, , .		0
74	Single Particle Atomic Force Microscopy. Microscopy and Microanalysis, 2020, 26, 3132-3132.	0.4	0
75	Phase State and Water Uptake Study of Individual Sea Spray Aerosol Particles Using Atomic Force Microscopy. Microscopy and Microanalysis, 2020, 26, 2500-2502.	0.4	0