

# Boris B Akhremitchev

## List of Publications by Year in descending order

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47  
papers

1,702  
citations

257450

24  
h-index

276875

41  
g-index

47  
all docs

47  
docs citations

47  
times ranked

1913  
citing authors

#	ARTICLE	IF	CITATIONS
1	Using the Adhesive Interaction between Atomic Force Microscopy Tips and Polymer Surfaces to Measure the Elastic Modulus of Compliant Samples. <i>Langmuir</i> , 2004, 20, 5837-5845.	3.5	177
2	Packing Density and Structural Heterogeneity of Insulin Amyloid Fibrils Measured by AFM Nanoindentation. <i>Biomacromolecules</i> , 2006, 7, 1630-1636.	5.4	143
3	Molecular Stress Relief through a Force-Induced Irreversible Extension in Polymer Contour Length. <i>Journal of the American Chemical Society</i> , 2010, 132, 15936-15938.	13.7	126
4	Single Polymer Chain Elongation by Atomic Force Microscopy. <i>Langmuir</i> , 1999, 15, 2799-2805.	3.5	123
5	Correction of Systematic Errors in Single-Molecule Force Spectroscopy with Polymeric Tethers by Atomic Force Microscopy. <i>Journal of Physical Chemistry B</i> , 2007, 111, 1963-1974.	2.6	95
6	Finite Sample Thickness Effects on Elasticity Determination Using Atomic Force Microscopy. <i>Langmuir</i> , 1999, 15, 5630-5634.	3.5	74
7	Study of the Polydispersity of Grafted Poly(dimethylsiloxane) Surfaces Using Single-Molecule Atomic Force Microscopy. <i>Journal of Physical Chemistry B</i> , 2001, 105, 3965-3971.	2.6	68
8	Imaging of optical field confinement in ridge waveguides fabricated on very-small-aperture laser. <i>Applied Physics Letters</i> , 2003, 83, 3245-3247.	3.3	67
9	Effects of Multiple-Bond Ruptures on Kinetic Parameters Extracted from Force Spectroscopy Measurements: Revisiting Biotin-Streptavidin Interactions. <i>Biophysical Journal</i> , 2008, 95, 3964-3976.	0.5	66
10	Ultrafast Infrared Spectroscopy of Vibrational States Prepared by Photoinduced Electron Transfer in (CN)5FeCNRu(NH3)5-. <i>Journal of Physical Chemistry A</i> , 2000, 104, 4314-4320.	2.5	48
11	Apertureless Scanning Near-Field Infrared Microscopy of a Rough Polymeric Surface. <i>Langmuir</i> , 2001, 17, 2774-2781.	3.5	48
12	Single-molecule Force Spectroscopy Measurements of "Hydrophobic Bond" between Tethered Hexadecane Molecules. <i>Journal of Physical Chemistry B</i> , 2006, 110, 17578-17583.	2.6	44
13	Monolayer-Sensitive Infrared Imaging of DNA Stripes Using Apertureless Near-Field Microscopy. <i>Langmuir</i> , 2002, 18, 5325-5328.	3.5	42
14	Complexity of "Knob" Hole Fibrin Interaction Revealed by Atomic Force Spectroscopy. <i>Langmuir</i> , 2008, 24, 4979-4988.	3.5	42
15	Single-Molecule Force Spectroscopy of the Aplysia Cell Adhesion Molecule Reveals Two Homophilic Bonds. <i>Biophysical Journal</i> , 2012, 103, 649-657.	0.5	39
16	Rupture Force Analysis and the Associated Systematic Errors in Force Spectroscopy by AFM. <i>Langmuir</i> , 2007, 23, 6076-6083.	3.5	36
17	Conformational Heterogeneity of Surface-Grafted Amyloidogenic Fragments of Alpha-Synuclein Dimers Detected by Atomic Force Microscopy. <i>Journal of the American Chemical Society</i> , 2005, 127, 14739-14744.	13.7	35
18	Investigation of Mechanical Properties of Insulin Crystals by Atomic Force Microscopy. <i>Langmuir</i> , 2008, 24, 880-887.	3.5	35

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19	Atomic Force Microscopy Studies of Hydration of Fluorinated Amide/Urethane Copolymer Film Surfaces. <i>Langmuir</i> , 1998, 14, 3976-3982.	3.5	33
20	Femtosecond Infrared and Visible Spectroscopy of Photoinduced Intermolecular Electron Transfer Dynamics and Solvent-Solute Reaction Geometries: Coumarin 337 in Dimethylaniline. <i>Journal of Physical Chemistry A</i> , 1997, 101, 2735-2738.	2.5	30
21	Adhesion Forces in Conducting Probe Atomic Force Microscopy. <i>Langmuir</i> , 2003, 19, 1929-1934.	3.5	30
22	Enhancement of the weak scattered signal in apertureless near-field scanning infrared microscopy. <i>Review of Scientific Instruments</i> , 2003, 74, 3670-3674.	1.3	27
23	Pairwise Interactions between Linear Alkanes in Water Measured by AFM Force Spectroscopy. <i>Journal of the American Chemical Society</i> , 2008, 130, 10008-10018.	13.7	27
24	Surface Elastic Properties of Human Retinal Pigment Epithelium Melanosomes. <i>Photochemistry and Photobiology</i> , 2008, 84, 671-678.	2.5	26
25	Association Kinetics from Single Molecule Force Spectroscopy Measurements. <i>Biophysical Journal</i> , 2009, 96, 3412-3422.	0.5	24
26	A femtosecond absorption spectrometer tunable from 50000 to 800 cm <sup>-1</sup> : Nonlinear optics and pump/probe geometries. <i>Review of Scientific Instruments</i> , 1996, 67, 3799-3805.	1.3	21
27	Single-Molecule Force Spectroscopy Measurements of Interactions between C <sub>60</sub> Fullerene Molecules. <i>Journal of Physical Chemistry C</i> , 2007, 111, 12898-12905.	3.1	21
28	Effects of Multiple-Bond Ruptures in Force Spectroscopy Measurements of Interactions between Fullerene C <sub>60</sub> Molecules in Water. <i>Journal of Physical Chemistry C</i> , 2008, 112, 5085-5092.	3.1	20
29	Kinetics of the Multistep Rupture of Fibrin A-Polymerization Interactions Measured Using Atomic Force Microscopy. <i>Biophysical Journal</i> , 2009, 97, 2820-2828.	0.5	20
30	Structural Characterization and Electron Tunneling at n-Si/SiO <sub>2</sub> /SAM/Liquid Interface. <i>Journal of Physical Chemistry B</i> , 1999, 103, 5220-5226.	2.6	16
31	Single-Molecule AFM Study of Polystyrene Grafted at Gold Surfaces. <i>Journal of Adhesion</i> , 2005, 81, 999-1016.	3.0	14
32	Distributions of Parameters and Features of Multiple Bond Ruptures in Force Spectroscopy by Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2010, 114, 8755-8765.	3.1	14
33	On the Detection of Single Bond Ruptures in Dynamic Force Spectroscopy by AFM. <i>Langmuir</i> , 2011, 27, 11287-11291.	3.5	13
34	Calcium Dependence of Fibrin Nanomechanics: The <sup>45</sup> Ca Mediates the Unfolding of Fibrinogen Induced by Force Applied to the C <sub>1</sub> -Bond. <i>Langmuir</i> , 2010, 26, 14716-14722.	3.5	10
35	Mechanical Distortion of Protein Receptor Decreases the Lifetime of a Receptor-Ligand Bond. <i>Journal of the American Chemical Society</i> , 2010, 132, 9681-9687.	13.7	9
36	Application of Scanning Force and Near Field Microscopies to the Characterization of Minimally Adhesive Polymer Surfaces. <i>Biofouling</i> , 2003, 19, 99-104.	2.2	8

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37	Kinetic Parameters from Detection Probability in Single Molecule Force Spectroscopy. Langmuir, 2010, 26, 11951-11957.	3.5	6
38	Anisotropy of Pairwise Interactions between Hexadecanes in Water Measured by AFM Force Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 18164-18172.	3.1	5
39	Apparent Dependence of Rupture Force on Loading Rate in Single Molecule Force Spectroscopy. ChemPhysChem, 2010, 11, 2096-2098.	2.1	5
40	Force Modulation Elasticity Mapping of Plastic-embedded, Thin-sectioned Skeletal Muscle. Microscopy and Microanalysis, 2001, 7, 32-38.	0.4	5
41	Ultrafast Infrared and Visible Spectroscopy of Intermolecular Electron Transfer From Dimethyl Aniline to Coumarin 337. Laser Chemistry, 1999, 19, 403-405.	0.5	3
42	Assembly, Tuning and Use of an Apertureless Near Field Infrared Microscope for Protein Imaging. Journal of Visualized Experiments, 2009, , .	0.3	3
43	Force Modulation Elasticity Mapping of Plastic-embedded, Thin-sectioned Skeletal Muscle. Microscopy and Microanalysis, 2001, 7, 32-38.	0.4	2
44	Vibrational Mode Coupling to Reverse Electron Transfer in (CN) <sub>5</sub> FeCNRu(NH <sub>3</sub> ) <sub>5</sub> <sup>2+</sup> in Solution. Laser Chemistry, 1999, 19, 385-387.	0.5	1
45	Developing Vibrational Infrared Near Field Spectroscopy to Characterize Polymer Structures on Surfaces: Identification and Reduction of Topographic Coupling Artifacts. Bulletin of the Chemical Society of Japan, 2002, 75, 1011-1018.	3.2	1
46	<title>Apertureless near field microscopy for chemical imaging of surfaces</title>. , 2003, 5223, 169.		0
47	Apertureless Scanning Near-Field IR Microscopy for Chemical Imaging of Thin Films. ACS Symposium Series, 2005, , 51-64.	0.5	0