

# Kerstin G Blank

## List of Publications by Year in descending order

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Version: 2024-02-01

64  
papers

2,331  
citations

172457

29  
h-index

214800

47  
g-index

66  
all docs

66  
docs citations

66  
times ranked

3234  
citing authors

#	ARTICLE	IF	CITATIONS
1	DNA: A Programmable Force Sensor. <i>Science</i> , 2003, 301, 367-370.	12.6	167
2	Thiol-based, site-specific and covalent immobilization of biomolecules for single-molecule experiments. <i>Nature Protocols</i> , 2010, 5, 975-985.	12.0	149
3	Catalytic capsids: the art of confinement. <i>Chemical Science</i> , 2011, 2, 358-362.	7.4	147
4	Reliable microfluidic on-chip incubation of droplets in delay-lines. <i>Lab on A Chip</i> , 2009, 9, 1344-1348.	6.0	146
5	Interfacial Activation of <i>Candida antarctica</i> Lipase B: Combined Evidence from Experiment and Simulation. <i>Biochemistry</i> , 2015, 54, 5969-5979.	2.5	112
6	Therapeutic nanoworms: towards novel synthetic dendritic cells for immunotherapy. <i>Chemical Science</i> , 2013, 4, 4168.	7.4	91
7	Functional expression of <i>Candida antarctica</i> lipase B in <i>Escherichia coli</i> . <i>Journal of Biotechnology</i> , 2006, 125, 474-483.	3.8	75
8	B-S Transition in Short Oligonucleotides. <i>Biophysical Journal</i> , 2007, 93, 2400-2409.	0.5	73
9	Affinity-Matured Recombinant Antibody Fragments Analyzed by Single-Molecule Force Spectroscopy. <i>Biophysical Journal</i> , 2007, 93, 3583-3590.	0.5	73
10	BMPR2 acts as a gatekeeper to protect endothelial cells from increased TGF $\beta$ responses and altered cell mechanics. <i>PLoS Biology</i> , 2019, 17, e3000557.	5.6	71
11	A force-based protein biochip. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 11356-11360.	7.1	59
12	Triggering Enzymatic Activity with Force. <i>Nano Letters</i> , 2009, 9, 3290-3295.	9.1	56
13	Dynamic Disorder in Single-Enzyme Experiments: Facts and Artifacts. <i>ACS Nano</i> , 2012, 6, 346-354.	14.6	55
14	Force-based Analysis of Multidimensional Energy Landscapes: Application of Dynamic Force Spectroscopy and Steered Molecular Dynamics Simulations to an Antibody Fragmentâ€“Peptide Complex. <i>Journal of Molecular Biology</i> , 2008, 381, 1253-1266.	4.2	48
15	Controlling T-Cell Activation with Synthetic Dendritic Cells Using the Multivalency Effect. <i>ACS Omega</i> , 2017, 2, 937-945.	3.5	48
16	Molecular mechanics of coiled coils loaded in the shear geometry. <i>Chemical Science</i> , 2018, 9, 4610-4621.	7.4	48
17	Covalent immobilization of recombinant fusion proteins with hAGT for single molecule force spectroscopy. <i>European Biophysics Journal</i> , 2005, 35, 72-78.	2.2	47
18	Single-Biomolecule Kinetics: The Art of Studying a Single Enzyme. <i>Annual Review of Analytical Chemistry</i> , 2010, 3, 319-340.	5.4	47

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19	Crystal Structure of the Anti-His Tag Antibody 3D5 Single-chain Fragment Complexed to its Antigen. <i>Journal of Molecular Biology</i> , 2002, 318, 135-147.	4.2	46
20	Force-Induced DNA Slippage. <i>Biophysical Journal</i> , 2007, 92, 2491-2497.	0.5	44
21	Polymer-Based Synthetic Dendritic Cells for Tailoring Robust and Multifunctional T Cell Responses. <i>ACS Chemical Biology</i> , 2015, 10, 485-492.	3.4	43
22	DNA-Responsive Polyisocyanopeptide Hydrogels with Stress-Stiffening Capacity. <i>Advanced Functional Materials</i> , 2016, 26, 9075-9082.	14.9	42
23	Bioinspired Histidine-Zn <sup>2+</sup> Coordination for Tuning the Mechanical Properties of Self-Healing Coiled Coil Cross-Linked Hydrogels. <i>Biomimetics</i> , 2019, 4, 25.	3.3	41
24	Electrical Monitoring of sp <sup>3</sup> Defect Formation in Individual Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1971-1976.	3.1	40
25	Self-Immobilizing Recombinant Antibody Fragments for Immunoaffinity Chromatography: Generic, Parallel, and Scalable Protein Purification. <i>Protein Expression and Purification</i> , 2002, 24, 313-322.	1.3	36
26	Catalytic single-chain polymeric nanoparticles at work: from ensemble towards single-particle kinetics. <i>Molecular Systems Design and Engineering</i> , 2018, 3, 609-618.	3.4	36
27	Fluorescence-based analysis of enzymes at the single-molecule level. <i>Biotechnology Journal</i> , 2009, 4, 465-479.	3.5	35
28	Site-Specific Immobilization of Genetically Engineered Variants of <i>Candida antarctica</i> Lipase B. <i>ChemBioChem</i> , 2006, 7, 1349-1351.	2.6	34
29	Mechanical Reversibility of Strain-Promoted Azide-Alkyne Cycloaddition Reactions. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2899-2902.	13.8	32
30	Molecular Force Sensors: From Fundamental Concepts toward Applications in Cell Biology. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600441.	3.7	30
31	Tuning coiled coil stability with histidine-metal coordination. <i>Nanoscale</i> , 2018, 10, 22725-22729.	5.6	29
32	Stiffness versus architecture of single helical polyisocyanopeptides. <i>Chemical Science</i> , 2013, 4, 2357.	7.4	28
33	Cytokine-Functionalized Synthetic Dendritic Cells for T Cell Targeted Immunotherapies. <i>Advanced Therapeutics</i> , 2018, 1, 1800021.	3.2	25
34	Extremely Compressible Hydrogel via Incorporation of Modified Graphitic Carbon Nitride. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1800712.	3.9	23
35	Structural determinants of coiled coil mechanics. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9145-9149.	2.8	20
36	Double-chip protein arrays: force-based multiplex sandwich immunoassays with increased specificity. <i>Analytical and Bioanalytical Chemistry</i> , 2004, 379, 974-81.	3.7	19

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37	Joining forces: integrating the mechanical and optical single molecule toolkits. <i>Chemical Science</i> , 2014, 5, 1680-1697.	7.4	18
38	Time-Resolved Single Molecule Fluorescence Spectroscopy of an $\hat{\pm}$ -Chymotrypsin Catalyzed Reaction. <i>Journal of Physical Chemistry B</i> , 2013, 117, 1252-1260.	2.6	17
39	Morpholinecarbonyl-Rhodamine 110 Based Substrates for the Determination of Protease Activity with Accurate Kinetic Parameters. <i>Bioconjugate Chemistry</i> , 2011, 22, 1932-1938.	3.6	15
40	Single-enzyme kinetics with fluorogenic substrates: lessons learnt and future directions. <i>FEBS Letters</i> , 2014, 588, 3553-3563.	2.8	15
41	Double chip protein arrays using recombinant single-chain Fv antibody fragments. <i>Proteomics</i> , 2004, 4, 1417-1420.	2.2	14
42	Fortified Coiled Coils: Enhancing Mechanical Stability with Lactam or Metal Staples. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 232-236.	13.8	14
43	Adaptation of <i>Escherichia coli</i> Biofilm Growth, Morphology, and Mechanical Properties to Substrate Water Content. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 5315-5325.	5.2	14
44	Monitoring Changes in Biochemical and Biomechanical Properties of Collagenous Tissues Using Label-Free and Nondestructive Optical Imaging Techniques. <i>Analytical Chemistry</i> , 2021, 93, 3813-3821.	6.5	13
45	Affinity-Based Purification of Polyisocyanopeptide Bioconjugates. <i>Bioconjugate Chemistry</i> , 2017, 28, 2560-2568.	3.6	11
46	Trimeric coiled coils expand the range of strength, toughness and dynamics of coiled coil motifs under shear. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 29105-29115.	2.8	11
47	Influence of Network Topology on the Viscoelastic Properties of Dynamically Crosslinked Hydrogels. <i>Frontiers in Chemistry</i> , 2020, 8, 536.	3.6	11
48	Decoding Biomineralization: Interaction of a Mad10-Derived Peptide with Magnetite Thin Films. <i>Nano Letters</i> , 2019, 19, 8207-8215.	9.1	9
49	Electrical Characteristics of Carbon Nanotube Devices Prepared with Single Oxidative Point Defects. <i>Journal of Physical Chemistry C</i> , 2012, 116, 1961-1965.	3.1	8
50	Spatiotemporal Measurement of Osmotic Pressures by FRET Imaging. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 6488-6495.	13.8	8
51	Deciphering Design Principles of Förster Resonance Energy Transfer-Based Protease Substrates: Thermolysin-Like Protease from <i>Geobacillus stearothermophilus</i> as a Test Case. <i>ACS Omega</i> , 2018, 3, 4148-4156.	3.5	7
52	Mechanische Reversibilität der spannungskatalysierten Azid-Alkin-Cycloaddition. <i>Angewandte Chemie</i> , 2016, 128, 2950-2953.	2.0	6
53	Genetically Engineered Organization: Protein Template, Biological Recognition Sites, and Nanoparticles. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600285.	3.7	5
54	Goodness of fit testing in dynamic single-molecule force spectroscopy. <i>Journal of Chemical Physics</i> , 2018, 149, 244120.	3.0	4

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55	Sequence-specific response of collagen-mimetic peptides to osmotic pressure. MRS Bulletin, 2021, 46, 889-901.	3.5	4
56	Magnetite-binding proteins from the magnetotactic bacterium Desulfamplus magnetovallimortis BW-1. Nanoscale, 2021, 13, 20396-20400.	5.6	4
57	Mechanische Verstärkung von Coiled Coils mit Lactam und Histidinâ€Metallâ€Klammern. Angewandte Chemie, 2021, 133, 234-239.	2.0	3
58	Watching Individual Enzymes at Work. Springer Series in Chemical Physics, 2010, , 495-511.	0.2	2
59	Editorial: Synthesis of Novel Hydrogels With Unique Mechanical Properties. Frontiers in Chemistry, 2020, 8, 595392.	3.6	2
60	Spatiotemporal Measurement of Osmotic Pressures by FRET Imaging. Angewandte Chemie, 2021, 133, 6562-6569.	2.0	1
61	Single Enzyme Activity Detected with a Nanoelectronic Sensor. Biophysical Journal, 2013, 104, 518a.	0.5	0
62	Single Molecule Enzyme Catalysis: Steps towards Accurate Kinetic Schemes. Biophysical Journal, 2013, 104, 372a.	0.5	0
63	Protein Conformational Motions: Enzyme Catalysis. , 2016, , 45-70.		0
64	Abstract IA29: Towards synthetic immune cells for cancer immunotherapy. , 2016, , .		0