Kerstin G Blank

List of Publications by Year
in descending order

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	Mechanische VerstÃrkung von Coiled Coils mit Lactam und Histidinâ€Metallâ€Klammern. Angewandte Chemie, 2021, 133, 234-239.	2.0	3
2	Spatiotemporal Measurement of Osmotic Pressures by FRET Imaging. Angewandte Chemie - International Edition, 2021, 60, 6488-6495.	13.8	8
3	Spatiotemporal Measurement of Osmotic Pressures by FRET Imaging. Angewandte Chemie, 2021, 133, 6562-6569.	2.0	1
4	Fortified Coiled Coils: Enhancing Mechanical Stability with Lactam or Metal Staples. Angewandte Chemie - International Edition, 2021, 60, 232-236.	13.8	14
5	Monitoring Changes in Biochemical and Biomechanical Properties of Collagenous Tissues Using Label-Free and Nondestructive Optical Imaging Techniques. Analytical Chemistry, 2021, 93, 3813-3821.	6.5	13
6	Sequence-specific response of collagen-mimetic peptides to osmotic pressure. MRS Bulletin, 2021, 46, 889-901.	3.5	4
7	Adaptation of Escherichia coli Biofilm Growth, Morphology, and Mechanical Properties to Substrate Water Content. ACS Biomaterials Science and Engineering, 2021, 7, 5315-5325.	5.2	14
8	Magnetite-binding proteins from the magnetotactic bacterium Desulfamplus magnetovallimortis BW-1. Nanoscale, 2021, 13, 20396-20400.	5.6	4
9	Influence of Network Topology on the Viscoelastic Properties of Dynamically Crosslinked Hydrogels. Frontiers in Chemistry, 2020, 8, 536.	3.6	11
10	Editorial: Synthesis of Novel Hydrogels With Unique Mechanical Properties. Frontiers in Chemistry, 2020, 8, 595392.	3.6	2
11	Extremely Compressible Hydrogel via Incorporation of Modified Graphitic Carbon Nitride. Macromolecular Rapid Communications, 2019, 40, e1800712.	3.9	23
12	Decoding Biomineralization: Interaction of a Mad10-Derived Peptide with Magnetite Thin Films. Nano Letters, 2019, 19, 8207-8215.	9.1	9
13	Structural determinants of coiled coil mechanics. Physical Chemistry Chemical Physics, 2019, 21, 9145-9149.	2.8	20
14	Bioinspired Histidineâ€“Zn2+ Coordination for Tuning the Mechanical Properties of Self-Healing Coiled Coil Cross-Linked Hydrogels. Biomimetics, 2019, 4, 25.	3.3	41
15	BMPR2 acts as aÂgatekeeper to protect endothelial cells from increased TGFÎ²Âresponses and altered cell mechanics. PLoS Biology, 2019, 17, e3000557.	5.6	71
16	Molecular mechanics of coiled coils loaded in the shear geometry. Chemical Science, 2018, 9, 4610-4621.	7.4	48
17	Deciphering Design Principles of FÃ¶rster Resonance Energy Transfer-Based Protease Substrates: Thermolysin-Like Protease from Geobacillus stearothermophilus as a Test Case. ACS Omega, 2018, 3, 4148-4156.	3.5	7
18	Trimeric coiled coils expand the range of strength, toughness and dynamics of coiled coil motifs under shear. Physical Chemistry Chemical Physics, 2018, 20, 29105-29115.	2.8	11

#	Article	IF	Citations
19	Tuning coiled coil stability with histidine-metal coordination. Nanoscale, 2018, 10, 22725-22729.	5.6	29
20	Goodness of fit testing in dynamic single-molecule force spectroscopy. Journal of Chemical Physics, 2018, 149, 244120.	3.0	4
21	Catalytic single-chain polymeric nanoparticles at work: from ensemble towards single-particle kinetics. Molecular Systems Design and Engineering, 2018, 3, 609-618.	3.4	36
22	Cytokineâ€Functionalized Synthetic Dendritic Cells for TÂCell Targeted Immunotherapies. Advanced Therapeutics, 2018, 1, 1800021.	3.2	25
23	Controlling T-Cell Activation with Synthetic Dendritic Cells Using the Multivalency Effect. ACS Omega, 2017, 2, 937-945.	3.5	48
24	Affinity-Based Purification of Polyisocyanopeptide Bioconjugates. Bioconjugate Chemistry, 2017, 28, 2560-2568.	3.6	11
25	Molecular Force Sensors: From Fundamental Concepts toward Applications in Cell Biology. Advanced Materials Interfaces, 2017, 4, 1600441.	3.7	30
26	Genetically Engineered Organization: Protein Template, Biological Recognition Sites, and Nanoparticles. Advanced Materials Interfaces, 2017, 4, 1600285.	3.7	5
27	Mechanische ReversibilitÃt der spannungskatalysierten Azidâ€Alkinâ€Cycloaddition. Angewandte Chemie, 2016, 128, 2950-2953.	2.0	6
28	Electrical Monitoring of sp³ Defect Formation in Individual Carbon Nanotubes. Journal of Physical Chemistry C, 2016, 120, 1971-1976.	3.1	40
29	DNAâ€Responsive Polyisocyanopeptide Hydrogels with Stressâ€Stiffening Capacity. Advanced Functional Materials, 2016, 26, 9075-9082.	14.9	42
30	Mechanical Reversibility of Strainâ€Promoted Azideâ€“Alkyne Cycloaddition Reactions. Angewandte Chemie - International Edition, 2016, 55, 2899-2902.	13.8	32
31	Protein Conformational Motions: Enzyme Catalysis. , 2016, , 45-70.		0
32	Abstract IA29: Towards synthetic immune cells for cancer immunotherapy. , 2016, , .		0
33	Interfacial Activation of Candida antarctica Lipase B: Combined Evidence from Experiment and Simulation. Biochemistry, 2015, 54, 5969-5979.	2.5	112
34	Polymer-Based Synthetic Dendritic Cells for Tailoring Robust and Multifunctional T Cell Responses. ACS Chemical Biology, 2015, 10, 485-492.	3.4	43
35	Joining forces: integrating the mechanical and optical single molecule toolkits. Chemical Science, 2014, 5, 1680-1697.	7.4	18
36	Singleâ€enzyme kinetics with fluorogenic substrates: lessons learnt and future directions. FEBS Letters, 2014, 588, 3553-3563.	2.8	15

#	Article	IF	Citations
37	Therapeutic nanoworms: towards novel synthetic dendritic cells for immunotherapy. Chemical Science, 2013, 4, 4168.	7.4	91
38	Single Enzyme Activity Detected with a Nanoelectronic Sensor. Biophysical Journal, 2013, 104, 518a.	0.5	0
39	Stiffness versus architecture of single helical polyisocyanopeptides. Chemical Science, 2013, 4, 2357.	7.4	28
40	Single Molecule Enzyme Catalysis: Steps towards Accurate Kinetic Schemes. Biophysical Journal, 2013, 104, 372a.	0.5	0
41	Time-Resolved Single Molecule Fluorescence Spectroscopy of an Î±-Chymotrypsin Catalyzed Reaction. Journal of Physical Chemistry B, 2013, 117, 1252-1260.	2.6	17
42	Electrical Characteristics of Carbon Nanotube Devices Prepared with Single Oxidative Point Defects. Journal of Physical Chemistry C, 2012, 116, 1961-1965.	3.1	8
43	Dynamic Disorder in Single-Enzyme Experiments: Facts and Artifacts. ACS Nano, 2012, 6, 346-354.	14.6	55
44	Catalytic capsids: the art of confinement. Chemical Science, 2011, 2, 358-362.	7.4	147
45	Morpholinecarbonyl-Rhodamine 110 Based Substrates for the Determination of Protease Activity with Accurate Kinetic Parameters. Bioconjugate Chemistry, 2011, 22, 1932-1938.	3.6	15
46	Thiol-based, site-specific and covalent immobilization of biomolecules for single-molecule experiments. Nature Protocols, 2010, 5, 975-985.	12.0	149
47	Single-Biomolecule Kinetics: The Art of Studying a Single Enzyme. Annual Review of Analytical Chemistry, 2010, 3, 319-340.	5.4	47
48	Watching Individual Enzymes at Work. Springer Series in Chemical Physics, 2010, , 495-511.	0.2	2
49	Fluorescenceâ€based analysis of enzymes at the singleâ€molecule level. Biotechnology Journal, 2009, 4, 465-479.	3.5	35
50	Reliable microfluidic on-chip incubation of droplets in delay-lines. Lab on A Chip, 2009, 9, 1344-1348.	6.0	146
51	Triggering Enzymatic Activity with Force. Nano Letters, 2009, 9, 3290-3295.	9.1	56
52	Force-based Analysis of Multidimensional Energy Landscapes: Application of Dynamic Force Spectroscopy and Steered Molecular Dynamics Simulations to an Antibody Fragmentâ€“Peptide Complex. Journal of Molecular Biology, 2008, 381, 1253-1266.	4.2	48
53	Force-Induced DNA Slippage. Biophysical Journal, 2007, 92, 2491-2497.	0.5	44
54	B-S Transition in Short Oligonucleotides. Biophysical Journal, 2007, 93, 2400-2409.	0.5	73

#	Article	IF	Citations
55	Affinity-Matured Recombinant Antibody Fragments Analyzed by Single-Molecule Force Spectroscopy. Biophysical Journal, 2007, 93, 3583-3590.	0.5	73
56	Functional expression of Candida antarctica lipase B in Eschericha coli. Journal of Biotechnology, 2006, 125, 474-483.	3.8	75
57	Site-Specific Immobilization of Genetically Engineered Variants of Candida antarctica Lipase B. ChemBioChem, 2006, 7, 1349-1351.	2.6	34
58	Covalent immobilization of recombinant fusion proteins with hAGT for single molecule force spectroscopy. European Biophysics Journal, 2005, 35, 72-78.	2.2	47
59	Double-chip protein arrays: force-based multiplex sandwich immunoassays with increased specificity. Analytical and Bioanalytical Chemistry, 2004, 379, 974-81.	3.7	19
60	Double chip protein arrays using recombinant single-chain Fv antibody fragments. Proteomics, 2004, 4, 1417-1420.	2.2	14
61	DNA: A Programmable Force Sensor. Science, 2003, 301, 367-370.	12.6	167
62	A force-based protein biochip. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11356-11360.	7.1	59
63	Self-Immobilizing Recombinant Antibody Fragments for Immunoaffinity Chromatography: Generic, Parallel, and Scalable Protein Purification. Protein Expression and Purification, 2002, 24, 313-322.	1.3	36
64	Crystal Structure of the Anti-His Tag Antibody 3D5 Single-chain Fragment Complexed to its Antigen. Journal of Molecular Biology, 2002, 318, 135-147.	4.2	46