

# Michael BÄrsch

## List of Publications by Year in descending order

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87  
papers

3,551  
citations

147801

31  
h-index

144013

57  
g-index

93  
all docs

93  
docs citations

93  
times ranked

3365  
citing authors

#	ARTICLE	IF	CITATIONS
1	Light- and magnetically actuated FePt microswimmers. <i>European Physical Journal E</i> , 2021, 44, 74.	1.6	16
2	Fast ATP-Dependent Subunit Rotation in Reconstituted F <sub>o</sub> F <sub>1</sub> -ATP Synthase Trapped in Solution. <i>Journal of Physical Chemistry B</i> , 2021, 125, 7638-7650.	2.6	7
3	Light-Driven ATP Regeneration in Diblock/Grafted Hybrid Vesicles. <i>ChemBioChem</i> , 2020, 21, 2149-2160.	2.6	32
4	Rotation of the $\hat{F}_3$ -subunit in single membrane-bound H <sup>+</sup> -ATP synthases from chloroplasts during ATP synthesis. <i>Advances in Botanical Research</i> , 2020, 96, 119-149.	1.1	0
5	Structural Asymmetry and Kinetic Limping of Single Rotary F-ATP Synthases. <i>Molecules</i> , 2019, 24, 504.	3.8	21
6	Ligand-induced oligomerization of the human GPCR neurotensin receptor 1 monitored in living HEK293T cells. , 2019, , .		1
7	Observing monomer: dimer transitions of neurotensin receptors 1 in single SMALPs by homoFRET and in an ABELtrap. , 2019, , .		5
8	Measuring nanoparticle diffusion in an ABELtrap. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 034006.	2.2	14
9	Sequential bottom-up assembly of mechanically stabilized synthetic cells by microfluidics. <i>Nature Materials</i> , 2018, 17, 89-96.	27.5	314
10	Analyzing the Dynamics of Single TBP-DNA-NC2 Complexes Using Hidden Markov Models. <i>Biophysical Journal</i> , 2018, 115, 2310-2326.	0.5	16
11	Diffusion Measurements of Swimming Enzymes with Fluorescence Correlation Spectroscopy. <i>Accounts of Chemical Research</i> , 2018, 51, 1911-1920.	15.6	67
12	Design of an allosterically modulated doxycycline and doxorubicin drug-binding protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 5744-5749.	7.1	11
13	The regulatory subunit $\hat{\mu}$ in <i>Escherichia coli</i> FOF <sub>1</sub> -ATP synthase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018, 1859, 775-788.	1.0	41
14	Visualizing Mitochondrial FoF <sub>1</sub> -ATP Synthase as the Target of the Immunomodulatory Drug Bz-423. <i>Frontiers in Physiology</i> , 2018, 9, 803.	2.8	11
15	Analyzing conformational changes in single FRET-labeled A1 parts of archaeal A1AO-ATP synthase. , 2018, , .		0
16	Towards monitoring conformational changes of the GPCR neurotensin receptor 1 by single-molecule FRET. , 2018, 10498, .		2
17	Conformational dynamics of the rotary subunit F in the A <sub>3</sub> B <sub>3</sub> DF complex of <i>Methanosarcina mazei</i> GÅ <sub>1</sub> Aâ€‹ATP synthase monitored by singleâ€‹molecule FRET. <i>FEBS Letters</i> , 2017, 591, 854-862.	2.8	8
18	Imaging cytochrome C oxidase and F <sub>o</sub> F <sub>1</sub> -ATP synthase in mitochondrial cristae of living human cells by FLIM and superresolution microscopy. <i>Proceedings of SPIE</i> , 2017, , .	0.8	3

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19	Confining Brownian motion of single nanoparticles in an ABELtrap. Proceedings of SPIE, 2017, , .	0.8	9
20	Binding of the immunomodulatory drug Bz-423 to mitochondrial F <sub>o</sub> F <sub>1</sub> -ATP synthase in living cells by FRET acceptor photobleaching. Proceedings of SPIE, 2016, , .	0.8	1
21	Observing single FoF1-ATP synthase at work using an improved fluorescent protein mNeonGreen as FRET donor. , 2016, , .		3
22	Optimized green fluorescent protein fused to FoF1-ATP synthase for single-molecule FRET using a fast anti-Brownian electrokinetic trap. , 2016, , .		4
23	3D-localization microscopy and tracking of FoF1-ATP synthases in living bacteria. Proceedings of SPIE, 2015, , .	0.8	4
24	Observing conformations of single FoF1-ATP synthases in a fast anti-Brownian electrokinetic trap. , 2015, , .		12
25	Unraveling the Rotary Motors in FoF1-ATP Synthase by Time-Resolved Single-Molecule FRET. Springer Series in Chemical Physics, 2015, , 309-338.	0.2	1
26	Regulatory conformational changes of the $\epsilon$ -subunit in single FRET-labeled F <sub>o</sub> F <sub>1</sub> -ATP synthase. Proceedings of SPIE, 2014, 8948, 89481J.	0.8	11
27	The regulatory switch of F <sub>1</sub> -ATPase studied by single-molecule FRET in the ABEL trap. Proceedings of SPIE, 2014, 8950, 89500H.	0.8	21
28	Analyzing conformational dynamics of single P-glycoprotein transporters by Förster resonance energy transfer using hidden Markov models. Methods, 2014, 66, 168-179.	3.8	26
29	Twisting and subunit rotation in single F <sub>o</sub> F <sub>1</sub> -ATP synthase. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120024.	4.0	40
30	Microscopy of single F <sub>o</sub> F <sub>1</sub> -ATP synthases” The unraveling of motors, gears, and controls. IUBMB Life, 2013, 65, 227-237.	3.4	9
31	Spotlighting motors and controls of single FoF1-ATP synthase. Biochemical Society Transactions, 2013, 41, 1219-1226.	3.4	32
32	Manipulating freely diffusing single 20-nm particles in an Anti-Brownian Electrokinetic Trap (ABELtrap). , 2013, , .		5
33	Monitoring subunit rotation in single FRET-labeled FoF1-ATP synthase in an anti-Brownian electrokinetic trap. , 2013, , .		5
34	Subunit rotation in single FRET-labeled F1-ATPase hold in solution by an anti-Brownian electrokinetic trap. , 2013, , .		5
35	Real Time Observation of Single Membrane Protein Insertion Events by the Escherichia coli Insertase YidC. PLoS ONE, 2013, 8, e59023.	2.5	29
36	Three-color Förster resonance energy transfer within single F <sub>o</sub> F <sub>1</sub> -ATP synthases: monitoring elastic deformations of the rotary double motor in real time. Journal of Biomedical Optics, 2012, 17, 011004.	2.6	35

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37	Step size of the rotary proton motor in single F <sub>o</sub> F <sub>1</sub> -ATP synthase from a thermoalkaliphilic bacterium by DCO-ALEX FRET. , 2012, , .		6
38	Dynamic Ligand-induced Conformational Rearrangements in P-glycoprotein as Probed by Fluorescence Resonance Energy Transfer Spectroscopy. Journal of Biological Chemistry, 2012, 287, 1112-1127.	3.4	87
39	Monitoring transient elastic energy storage within the rotary motors of single FoF1-ATP synthase by DCO-ALEX FRET. , 2012, , .		6
40	Diffusion properties of single FoF1-ATP synthases in a living bacterium unraveled by localization microscopy. Proceedings of SPIE, 2012, , .	0.8	5
41	Elastic deformations of the rotary double motor of single FoF1-ATP synthases detected in real time by Förster resonance energy transfer. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1722-1731.	1.0	36
42	YidC-Driven Membrane Insertion of Single Fluorescent Pf3 Coat Proteins. Journal of Molecular Biology, 2011, 412, 165-175.	4.2	32
43	ATP Synthase – A Paradigmatic Molecular Machine. , 2011, , 208-238.		20
44	Subunit rotation in a single F <sub>o</sub> F <sub>1</sub> -ATP synthase in a living bacterium monitored by FRET. , 2011, , .		11
45	Improving FRET-Based Monitoring of Single Chemomechanical Rotary Motors at Work. ChemPhysChem, 2011, 12, 542-553.	2.1	27
46	Single-molecule fluorescence resonance energy transfer techniques on rotary ATP synthases. Biological Chemistry, 2011, 392, 135-42.	2.5	20
47	Drug transport mechanism of P-glycoprotein monitored by single molecule fluorescence resonance energy transfer. Proceedings of SPIE, 2011, , .	0.8	5
48	Monitoring single membrane protein dynamics in a liposome manipulated in solution by the ABELtrap. Proceedings of SPIE, 2011, , .	0.8	14
49	Targeting cytochrome C oxidase in mitochondria with Pt(II)-porphyrins for photodynamic therapy. Proceedings of SPIE, 2010, , .	0.8	4
50	Regulatory assembly of the vacuolar proton pump V <sub>o</sub> V <sub>1</sub> -ATPase in yeast cells by FLIM-FRET. , 2010, , .		6
51	Fluorescent nanodiamonds for FRET-based monitoring of a single biological nanomotor F <sub>o</sub> F <sub>1</sub> -ATP synthase. Proceedings of SPIE, 2009, , .	0.8	14
52	Mechanistic basis for differential inhibition of the F <sub>1</sub> F <sub>o</sub> -ATPase by aurovertin. Biopolymers, 2009, 91, 830-840.	2.4	42
53	36° step size of proton-driven c-ring rotation in FoF1-ATP synthase. EMBO Journal, 2009, 28, 2689-2696.	7.8	114
54	Diffusion in Model Networks as Studied by NMR and Fluorescence Correlation Spectroscopy. Macromolecules, 2009, 42, 4681-4689.	4.8	47

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55	Detection of ligand-induced CNTF receptor dimers in living cells by fluorescence cross correlation spectroscopy. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2009, 1788, 1890-1900.	2.6	21
56	Poly(BODIPY)s: A New Class of Tunable Polymeric Dyes. <i>Macromolecules</i> , 2009, 42, 6529-6536.	4.8	89
57	Fluorescence and Spin Properties of Defects in Single Digit Nanodiamonds. <i>ACS Nano</i> , 2009, 3, 1959-1965.	14.6	309
58	Simultaneous monitoring of the two coupled motors of a single F <sub>o</sub> F <sub>1</sub> -ATP synthase by three-color FRET using duty cycle-optimized triple-ALEX. <i>Proceedings of SPIE</i> , 2009, , .	0.8	21
59	Enzymatic Control of the Size of DNA Block Copolymer Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 974-976.	13.8	76
60	K <sup>+</sup> -Translocating KdpFABC P-Type ATPase from <i>Escherichia coli</i> Acts as a Functional and Structural Dimer. <i>Biochemistry</i> , 2008, 47, 3564-3575.	2.5	32
61	Exploiting the Nitrilotriacetic Acid Moiety for Biolabeling with Ultrastable Perylene Dyes. <i>Journal of the American Chemical Society</i> , 2008, 130, 5398-5399.	13.7	100
62	The Proton-translocating a Subunit of F <sub>o</sub> F <sub>1</sub> -ATP Synthase Is Allocated Asymmetrically to the Peripheral Stalk. <i>Journal of Biological Chemistry</i> , 2008, 283, 33602-33610.	3.4	55
63	Quantum dots for single-pair fluorescence resonance energy transfer in membrane- integrated E <sub>F</sub> F <sub>1</sub> . <i>Biochemical Society Transactions</i> , 2008, 36, 1017-1021.	3.4	21
64	Structural organization of the V-ATPase and its implications for regulatory assembly and disassembly. <i>Biochemical Society Transactions</i> , 2008, 36, 1027-1031.	3.4	35
65	Monitoring the conformational dynamics of a single potassium transporter by ALEX-FRET. <i>Proceedings of SPIE</i> , 2008, , .	0.8	9
66	Detecting substeps in the rotary motors of F <sub>o</sub> F <sub>1</sub> -ATP synthase by Hidden Markov Models. , 2007, , .		17
67	Monitoring the rotary motors of single F <sub>o</sub> F <sub>1</sub> -ATP synthase by synchronized multi channel TCSPC. , 2007, , .		18
68	Engineering the Structural Properties of DNA Block Copolymer Micelles by Molecular Recognition. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 1172-1175.	13.8	151
69	Subunit movements in membrane-integrated E <sub>F</sub> F <sub>1</sub> during ATP synthesis detected by single-molecule spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2006, 1757, 311-319.	1.0	46
70	Crystal Structure of the Archaeal A1AO ATP Synthase Subunit B from <i>Methanosarcina mazei</i> GÅ¶1: Implications of Nucleotide-binding Differences in the Major A1AO Subunits A and B. <i>Journal of Molecular Biology</i> , 2006, 358, 725-740.	4.2	60
71	3D-localization of the a -subunit in F <sub>o</sub> F <sub>1</sub> -ATP synthase by time resolved single-molecule FRET. , 2006, , .		13
72	Subunit movement in individual H <sup>+</sup> -ATP synthases during ATP synthesis and hydrolysis revealed by fluorescence resonance energy transfer. <i>Biochemical Society Transactions</i> , 2005, 33, 878-882.	3.4	13

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73	Movements of the $\epsilon$ -subunit during catalysis and activation in single membrane-bound H <sup>+</sup> -ATP synthase. <i>EMBO Journal</i> , 2005, 24, 2053-2063.	7.8	116
74	Both Rotor and Stator Subunits Are Necessary for Efficient Binding of F1 to F0 in Functionally Assembled <i>Escherichia coli</i> ATP Synthase. <i>Journal of Biological Chemistry</i> , 2005, 280, 33338-33345.	3.4	37
75	Asymmetry of rotational catalysis of single membrane-bound F <sub>0</sub> F <sub>1</sub> -ATP synthase. , 2005, , .		23
76	Evidence for major structural changes in subunit C of the vacuolar ATPase due to nucleotide binding. <i>FEBS Letters</i> , 2005, 579, 1961-1967.	2.8	51
77	Distances between the b-subunits in the tether domain of FOF1-ATP synthase from <i>E. coli</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1708, 143-153.	1.0	44
78	Proton-powered subunit rotation in single membrane-bound FOF1-ATP synthase. <i>Nature Structural and Molecular Biology</i> , 2004, 11, 135-141.	8.2	392
79	Binding of single nucleotides to H <sup>+</sup> -ATP synthases observed by fluorescence resonance energy transfer. <i>Bioelectrochemistry</i> , 2004, 63, 79-85.	4.6	28
80	Binding of the b-Subunit in the ATP Synthase from <i>Escherichia coli</i> . <i>Biochemistry</i> , 2004, 43, 1054-1064.	2.5	40
81	Real-Time pH Microscopy down to the Molecular Level by Combined Scanning Electrochemical Microscopy/Single-Molecule Fluorescence Spectroscopy. <i>Analytical Chemistry</i> , 2004, 76, 3473-3481.	6.5	86
82	Stepwise rotation of the $\hat{\epsilon}$ -subunit of EF <sub>o</sub> F <sub>1</sub> -ATP synthase during ATP synthesis: a single-molecule FRET approach. , 2003, , .		16
83	Stepwise rotation of the $\hat{\epsilon}$ -subunit of EFOF1-ATP synthase observed by intramolecular single-molecule fluorescence resonance energy transfer1. <i>FEBS Letters</i> , 2002, 527, 147-152.	2.8	113
84	Binding affinities and protein ligand complex geometries of nucleotides at the F1part of the mitochondrial ATP synthase obtained by ligand docking calculations. <i>FEBS Letters</i> , 2002, 530, 99-103.	2.8	17
85	In situ temperature measurements via ruby R lines of sapphire substrate based InGaN light emitting diodes during operation. <i>Journal of Applied Physics</i> , 2001, 89, 3091-3094.	2.5	25
86	Microstructuring of solid-supported lipid layers using SAM pattern generation by scanning electrochemical microscopy and the chemical lens. <i>Bioelectrochemistry</i> , 2000, 52, 103-110.	4.6	39
87	Conformational changes of the H <sup>+</sup> -ATPase from <i>Escherichia coli</i> upon nucleotide binding detected by single molecule fluorescence. <i>FEBS Letters</i> , 1998, 437, 251-254.	2.8	82