

Anatoly Buchachenko

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

30
papers

955
citations

16
h-index

30
g-index

30
ext. papers

1,104
ext. citations

9.7
avg, IF

4.79
L-index

#	Paper	IF	Citations
30	Magnetic Isotope Effect: Nuclear Spin Control of Chemical Reactions. <i>Journal of Physical Chemistry A</i> , 2001 , 105, 9995-10011	2.8	165
29	Electron spin catalysis. <i>Chemical Reviews</i> , 2002 , 102, 603-12	68.1	93
28	Magnetic isotope effect of magnesium in phosphoglycerate kinase phosphorylation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 10793-6	11.5	80
27	Magnetic field affects enzymatic ATP synthesis. <i>Journal of the American Chemical Society</i> , 2008 , 130, 12868-9	16.4	63
26	Mass-independent isotope effects. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 2231-8	3.4	61
25	Spin Biochemistry: Magnetic Isotope Effect in the Reaction of Creatine Kinase with CH ₃ HgCl. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 707-710	2.8	53
24	Magnesium isotope effects in enzymatic phosphorylation. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 2548-56	3.4	50
23	Chemistry of enzymatic ATP synthesis: an insight through the isotope window. <i>Chemical Reviews</i> , 2012 , 112, 2042-58	68.1	49
22	Why magnetic and electromagnetic effects in biology are irreproducible and contradictory?. <i>Bioelectromagnetics</i> , 2016 , 37, 1-13	1.6	46
21	Magnetic isotope and magnetic field effects on the DNA synthesis. <i>Nucleic Acids Research</i> , 2013 , 41, 8300-7	6.1	41
20	Spin biochemistry: magnetic ²⁴ Mg- ²⁵ Mg- ²⁶ Mg isotope effect in mitochondrial ADP phosphorylation. <i>Cell Biochemistry and Biophysics</i> , 2005 , 43, 243-51	3.2	41
19	New Possibilities for Magnetic Control of Chemical and Biochemical Reactions. <i>Accounts of Chemical Research</i> , 2017 , 50, 877-884	24.3	37
18	Spin biochemistry: intramitochondrial nucleotide phosphorylation is a magnesium nuclear spin controlled process. <i>Mitochondrion</i> , 2005 , 5, 67-9	4.9	28
17	Ion-radical mechanism of enzymatic ATP synthesis: DFT calculations and experimental control. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 2287-92	3.4	23
16	Magnetic control of the DNA synthesis. <i>Chemical Physics Letters</i> , 2013 , 586, 138-142	2.5	21
15	Magnetic field effect on the oxidation of hydrocarbons by molecular oxygen. <i>Mendeleev Communications</i> , 2017 , 27, 246-247	1.9	19
14	Magnetic and Classical Oxygen Isotope Effects in Chain Oxidation Processes: A Quantitative Study. <i>The Journal of Physical Chemistry</i> , 1995 , 99, 4964-4969		13

13	Magnetic isotope and magnetic field effects on the silicon oxidation. <i>Chemical Physics Letters</i> , 2013 , 560, 29-31	2.5	12
12	Photo-oxidation of water by molecular oxygen: isotope exchange and isotope effects. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 3196-200	2.8	11
11	Magnetic isotope effect in the photolysis of organotin compounds. <i>Journal of Physical Chemistry A</i> , 2006 , 110, 3857-9	2.8	10
10	Magnetic field effect on the oxidation of organic substances by molecular oxygen. <i>Journal of Physical Organic Chemistry</i> , 2019 , 32, e3915	2.1	10
9	A specific role of magnetic isotopes in biological and ecological systems. Physics and biophysics beyond. <i>Progress in Biophysics and Molecular Biology</i> , 2020 , 155, 1-19	4.7	9
8	Nuclear spin selectivity in enzymatic catalysis: A caution for applied biophysics. <i>Archives of Biochemistry and Biophysics</i> , 2019 , 667, 30-35	4.1	7
7	Magnetic field as a means to identify initiating reaction in oxidation of organic substances with molecular oxygen. <i>Mendeleev Communications</i> , 2020 , 30, 433-435	1.9	4
6	Magnetic Control of Enzymatic Phosphorylation 2014 , 2,		3
5	Magnetic field effects on the initiation of chain oxidation. <i>Mendeleev Communications</i> , 2021 , 31, 341-342	1.9	2
4	The DNA Repair Key Enzyme Affected by $^{43}\text{Ca}^{2+}$: A New Platform for Anti-Leukemia Therapies. <i>British Journal of Pharmacology and Toxicology</i> , 2014 , 5, 42-48	0	1
3	Cascade Strategy of the Chemically Induced Magnetic Isotope Fractionation. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 865-870	2.8	1
2	Isotope Effects Induced by Molecular Compression. <i>Journal of Physical Chemistry A</i> , 2020 , 124, 6352-6355	1.8	1
1	Magnetic field effects on the initiation of chain oxidation. <i>Mendeleev Communications</i> , 2021 , 31, 341-342	1.9	1