Isaac B Bersuker

List of Publications by Year
in descending order

42	2,758	394421	265206
papers	citations	19 h-index	42 g-index

44	44	44	2477
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modern Aspects of the Jahnâ˜Teller Effect Theory and Applications To Molecular Problems. Chemical Reviews, 2001, 101, 1067-1114.	47.7	613
2	Pseudo-Jahnâ€“Teller Effectâ€”A Two-State Paradigm in Formation, Deformation, and Transformation of Molecular Systems and Solids. Chemical Reviews, 2013, 113, 1351-1390.	47.7	412
3	Pseudo Jahn-Teller Origin of Perovskite Multiferroics, Magnetic-Ferroelectric Crossover, and Magnetoelectric Effects: The<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>d</mml:mi><mml:mn>0</mml:mn></mml:msup><mml:mtext mathvariant="normal">â˜</mml:mtext><mml:msup><mml:mi>d</mml:mi><mml:mn>10</mml:mn></mml:msup></mml:math>Problem. Physical Review Letters, 2012, 108, 137202.	7.8	112
4	On the origin of dynamic instability of molecular systems. Theoretica Chimica Acta, 1984, 66, 161-172.	0.8	88
5	Jahnâ€“Teller and Pseudo-Jahnâ€“Teller Effects: From Particular Features to General Tools in Exploring Molecular and Solid State Properties. Chemical Reviews, 2021, 121, 1463-1512.	47.7	67
6	Multiconical Intersections and Nondegenerate Ground State inEâŠ—eJahn-Teller Systems. Physical Review Letters, 1999, 83, 3009-3012.	7.8	66
7	Limitations of density functional theory in application to degenerate states. Journal of Computational Chemistry, 1997, 18, 260-267.	3.3	58
8	Lost Topological (Berry) Phase Factor in Electronic Structure Calculations. Example: The Ozone Molecule. Physical Review Letters, 2006, 96, 163005.	7.8	50
9	Pseudo Jahnâ€“Teller origin of instability of molecular high-symmetry configurations: Novel numerical method and results. Journal of Chemical Physics, 2002, 117, 10478-10486.	3.0	49
10	Orbital disproportionation and spin crossover as a pseudo Jahn-Teller effect. Journal of Chemical Physics, 2006, 125, 104102.	3.0	45
11	Combined Jahnâ˜Teller and Pseudo-Jahnâ˜Teller Effect in the CO₃ Molecule: A Seven-State Six-Mode Problem. Journal of Chemical Theory and Computation, 2009, 5, 2679-2686.	5.3	39
12	Class of Molecular and Solid State Systems with Correlated Magnetic and Dielectric Bistabilities Induced by the Pseudo Jahn-Teller Effect. Physical Review Letters, 2011, 106, 246406.	7.8	29
13	Origin of polar nanoregions and relaxor properties of ferroelectrics. Physical Review B, 2018, 98, .	3.2	25
14	Pseudo Jahnâ€“Teller effect in distortion and restoration of planar configurations of tetra-heterocyclic 1,2-diazetes C2N2E4, E = H, F, Cl, Br. Chemical Physics, 2015, 460, 106-110.	1.9	24
15	Multiple lines of conical intersections and nondegenerate ground state in TâŠ—t2 Jahnâ€“Teller systems. Journal of Chemical Physics, 2000, 112, 8470-8482.	3.0	23
16	Perovskite Crystals: Unique Pseudo-Jahnâ€“Teller Origin of Ferroelectricity, Multiferroicity, Permittivity, Flexoelectricity, and Polar Nanoregions. Condensed Matter, 2020, 5, 68.	1.8	23
17	Pseudo Jahnâ€“Teller origin of cisâ€“trans and other conformational changes. The role of double bonds. Physical Chemistry Chemical Physics, 2011, 13, 3502.	2.8	21
18	Pseudo Jahnâ€“Teller origin of instability of planar configurations of hexa-heterocycles C4N2H4X2 (X =) Tj ETQq0 0 0 rgBT /Overlock 10	2.5	21

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19	Pseudo jahnâ€teller origin of bending distortions in rennerâ€teller molecules and its spectroscopic implications. International Journal of Quantum Chemistry, 2012, 112, 3025-3032.	2.0	19
20	Geometry, Electronic Structure, and Pseudo Jahn-Teller Effect in Tetrasilacyclobutadiene Analogues. Scientific Reports, 2016, 6, 23315.	3.3	19
21	Giant permittivity and electrostriction induced by dynamic Jahn-Teller and pseudo Jahn-Teller effects. Applied Physics Letters, 2015, 107, .	3.3	18
22	Pseudo-Jahn-Teller origin of geometry and pseudorotations in second row tetra-atomic clusters X4 (X=Na,Mg,Al,Si,P,S). Journal of Chemical Physics, 2006, 124, 044321.	3.0	16
23	QSAR without arbitrary descriptors: the electron-conformational method. Journal of Computer-Aided Molecular Design, 2008, 22, 423-430.	2.9	16
24	REVIEW: THE CONCEPT OF VIBRONIC INTERACTIONS IN CRYSTAL STEREOCHEMISTRY OF TRANSITION METAL COMPOUNDS. Journal of Coordination Chemistry, 1995, 34, 289-338.	2.2	15
25	Recent Developments in the Jahnâ€“Teller Effect Theory. Springer Series in Chemical Physics, 2009, , 3-23.	0.2	14
26	Pharmacophore Identification and Bioactivity Prediction for Group I Metabotropic Glutamate Receptor Agonists by the Electron-Conformational QSAR Method. QSAR and Combinatorial Science, 2001, 20, 327-334.	1.2	12
27	Quantitative Drug Activity Prediction for Inhibitors of Human Breast Carcinoma. Pharmaceutical Medicine, 2004, 18, 81-89.	0.4	12
28	Jahnâ€“Teller, pseudo Jahnâ€“Teller, and Rennerâ€“Teller effects in systems with fractional charges. Computational and Theoretical Chemistry, 2011, 976, 113-119.	2.5	12
29	Sudden polarization and zwitterion formation as a pseudo-Jahnâ€“Teller effect: a new insight into the photochemistry of alkenes. Physical Chemistry Chemical Physics, 2019, 21, 10677-10692.	2.8	11
30	Novel Effect Induced by Pseudo-Jahnâ€“Teller Interactions: Broken Cylindrical Symmetry in Linear Molecules. Journal of Chemical Theory and Computation, 2014, 10, 4377-4388.	5.3	9
31	The Jahnâ€“Teller and Pseudo-Jahnâ€“Teller Effects: A Unique and Only Source of Spontaneous Symmetry Breaking in Atomic Matter. Symmetry, 2021, 13, 1577.	2.2	7
32	Acoustic Properties of Crystals with Jahnâ€“Teller Impurities: Elastic Moduli and Relaxation Time. Application to SrF2:Cr2+. Journal of the Physical Society of Japan, 2017, 86, 114604.	1.6	6
33	Methods of Combined Quantum/Classical (QM/MM) Modeling for Large Organometallic and Metallobiochemical Systems. Computational Chemistry - Reviews of Current Trends, 2001, , 69-135.	0.4	6
34	A Method of Hybrid Quantum-Classical Calculations for Large Organometallic-Metallobiochemical Systems. ACS Symposium Series, 1998, , 66-91.	0.5	4
35	Spin Crossover and Magnetic-Dielectric Bistability Induced by Hidden Pseudo-Jahnâ€“Teller Effect. Magnetochemistry, 2020, 6, 64.	2.4	4
36	Pseudo Jahn-Teller Origin of the Proton-transfer Energy Barrier in the Hydrogen-bonded [FHF]-System. Chemistry Journal of Moldova, 2021, 16, 115-120.	0.6	4

#	Article	IF	Citations
37	Comment on â€œFrequency Upshift in BO₂ and CO₂⁺ upon Electronic Excitation: A Twin-State Model Rationalizationâ€. Journal of Physical Chemistry A, 2012, 116, 1316-1317.	2.5	3
38	Magnetic Field Induced Relaxation Attenuation of Ultrasound by Jahnâ€“Teller Centers: Application to ZnSe:Cr2+. Applied Magnetic Resonance, 2016, 47, 685-692.	1.2	2
39	Interplay Between Relaxation and Resonance in Ultrasound Attenuation by the Cubic Crystal ZnSe:Cr. Physica Status Solidi (B): Basic Research, 2019, 256, 1800635.	1.5	2
40	Origin of Perovskite Multiferroicity and Magnetoelectric-Multiferroic Effectsâ€”The Role of Electronic Spin in Spontaneous Polarization of Crystals. Magnetochemistry, 2022, 8, 9.	2.4	2
41	Magnetoacoustic Relaxation by Cr²⁺ Jahnâ€“Teller Centers Revealed from Elastic Moduli. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800586.	1.8	1
42	Limitations of density functional theory in application to degenerate states. , 1997, 18, 260.		1