

Isaac B Bersuker

List of Publications by Year in descending order

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2,758
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| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Origin of Perovskite Multiferroicity and Magnetoelectric-Multiferroic Effects—The Role of Electronic Spin in Spontaneous Polarization of Crystals. <i>Magnetochemistry</i> , 2022, 8, 9. | 2.4 | 2 |
| 2 | Jahn–Teller and Pseudo-Jahn–Teller Effects: From Particular Features to General Tools in Exploring Molecular and Solid State Properties. <i>Chemical Reviews</i> , 2021, 121, 1463-1512. | 47.7 | 67 |
| 3 | Pseudo Jahn-Teller Origin of the Proton-transfer Energy Barrier in the Hydrogen-bonded [FHF]-System. <i>Chemistry Journal of Moldova</i> , 2021, 16, 115-120. | 0.6 | 4 |
| 4 | The Jahn–Teller and Pseudo-Jahn–Teller Effects: A Unique and Only Source of Spontaneous Symmetry Breaking in Atomic Matter. <i>Symmetry</i> , 2021, 13, 1577. | 2.2 | 7 |
| 5 | Spin Crossover and Magnetic-Dielectric Bistability Induced by Hidden Pseudo-Jahn–Teller Effect. <i>Magnetochemistry</i> , 2020, 6, 64. | 2.4 | 4 |
| 6 | Perovskite Crystals: Unique Pseudo-Jahn–Teller Origin of Ferroelectricity, Multiferroicity, Permittivity, Flexoelectricity, and Polar Nanoregions. <i>Condensed Matter</i> , 2020, 5, 68. | 1.8 | 23 |
| 7 | Sudden polarization and zwitterion formation as a pseudo-Jahn–Teller effect: a new insight into the photochemistry of alkenes. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 10677-10692. | 2.8 | 11 |
| 8 | Interplay Between Relaxation and Resonance in Ultrasound Attenuation by the Cubic Crystal ZnSe:Cr. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800635. | 1.5 | 2 |
| 9 | Origin of polar nanoregions and relaxor properties of ferroelectrics. <i>Physical Review B</i> , 2018, 98, . | 3.2 | 25 |
| 10 | Magnetoacoustic Relaxation by Cr ²⁺ Jahn–Teller Centers Revealed from Elastic Moduli. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1800586. | 1.8 | 1 |
| 11 | Acoustic Properties of Crystals with Jahn–Teller Impurities: Elastic Moduli and Relaxation Time. Application to SrF ₂ :Cr ²⁺ . <i>Journal of the Physical Society of Japan</i> , 2017, 86, 114604. | 1.6 | 6 |
| 12 | Geometry, Electronic Structure, and Pseudo Jahn-Teller Effect in Tetrasilacyclobutadiene Analogues. <i>Scientific Reports</i> , 2016, 6, 23315. | 3.3 | 19 |
| 13 | Magnetic Field Induced Relaxation Attenuation of Ultrasound by Jahn–Teller Centers: Application to ZnSe:Cr ²⁺ . <i>Applied Magnetic Resonance</i> , 2016, 47, 685-692. | 1.2 | 2 |
| 14 | Giant permittivity and electrostriction induced by dynamic Jahn-Teller and pseudo Jahn-Teller effects. <i>Applied Physics Letters</i> , 2015, 107, . | 3.3 | 18 |
| 15 | Pseudo Jahn–Teller effect in distortion and restoration of planar configurations of tetra-heterocyclic 1,2-diazetes C ₂ N ₂ E ₄ , E = H, F, Cl, Br. <i>Chemical Physics</i> , 2015, 460, 106-110. | 1.9 | 24 |
| 16 | Pseudo Jahn–Teller origin of instability of planar configurations of hexa-heterocycles C ₄ N ₂ H ₄ X ₂ (X =) Tj ETQq0 0,0,rgBT /Overlock 10 | 2.5 | 21 |
| 17 | Novel Effect Induced by Pseudo-Jahn–Teller Interactions: Broken Cylindrical Symmetry in Linear Molecules. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 4377-4388. | 5.3 | 9 |
| 18 | Pseudo-Jahn–Teller Effect—A Two-State Paradigm in Formation, Deformation, and Transformation of Molecular Systems and Solids. <i>Chemical Reviews</i> , 2013, 113, 1351-1390. | 47.7 | 412 |

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|----|---|------|-----------|
| 19 | Pseudo Jahn-Teller Origin of Perovskite Multiferroics, Magnetic-Ferroelectric Crossover, and Magnetolectric Effects: The d^0 Problem. <i>Physical Review Letters</i> , 2012, 108, 107202. | 7.8 | 112 |
| 20 | Comment on "Frequency Upshift in BO_2 and CO_2 upon Electronic Excitation: A Twin-State Model Rationalization". <i>Journal of Physical Chemistry A</i> , 2012, 116, 1316-1317. | 2.5 | 3 |
| 21 | Pseudo Jahn-Teller origin of bending distortions in renner-Teller molecules and its spectroscopic implications. <i>International Journal of Quantum Chemistry</i> , 2012, 112, 3025-3032. | 2.0 | 19 |
| 22 | Pseudo Jahn-Teller origin of cis-trans and other conformational changes. The role of double bonds. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 3502. | 2.8 | 21 |
| 23 | Class of Molecular and Solid State Systems with Correlated Magnetic and Dielectric Bistabilities Induced by the Pseudo Jahn-Teller Effect. <i>Physical Review Letters</i> , 2011, 106, 246406. | 7.8 | 29 |
| 24 | Jahn-Teller, pseudo Jahn-Teller, and Renner-Teller effects in systems with fractional charges. <i>Computational and Theoretical Chemistry</i> , 2011, 976, 113-119. | 2.5 | 12 |
| 25 | Recent Developments in the Jahn-Teller Effect Theory. <i>Springer Series in Chemical Physics</i> , 2009, , 3-23. | 0.2 | 14 |
| 26 | Combined Jahn-Teller and Pseudo-Jahn-Teller Effect in the CO_3 Molecule: A Seven-State Six-Mode Problem. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 2679-2686. | 5.3 | 39 |
| 27 | QSAR without arbitrary descriptors: the electron-conformational method. <i>Journal of Computer-Aided Molecular Design</i> , 2008, 22, 423-430. | 2.9 | 16 |
| 28 | Lost Topological (Berry) Phase Factor in Electronic Structure Calculations. Example: The Ozone Molecule. <i>Physical Review Letters</i> , 2006, 96, 163005. | 7.8 | 50 |
| 29 | Orbital disproportionation and spin crossover as a pseudo Jahn-Teller effect. <i>Journal of Chemical Physics</i> , 2006, 125, 104102. | 3.0 | 45 |
| 30 | Pseudo-Jahn-Teller origin of geometry and pseudorotations in second row tetra-atomic clusters X_4 ($X=Na,Mg,Al,Si,P,S$). <i>Journal of Chemical Physics</i> , 2006, 124, 044321. | 3.0 | 16 |
| 31 | Quantitative Drug Activity Prediction for Inhibitors of Human Breast Carcinoma. <i>Pharmaceutical Medicine</i> , 2004, 18, 81-89. | 0.4 | 12 |
| 32 | Pseudo Jahn-Teller origin of instability of molecular high-symmetry configurations: Novel numerical method and results. <i>Journal of Chemical Physics</i> , 2002, 117, 10478-10486. | 3.0 | 49 |
| 33 | Modern Aspects of the Jahn-Teller Effect Theory and Applications To Molecular Problems. <i>Chemical Reviews</i> , 2001, 101, 1067-1114. | 47.7 | 613 |
| 34 | Pharmacophore Identification and Bioactivity Prediction for Group I Metabotropic Glutamate Receptor Agonists by the Electron-Conformational QSAR Method. <i>QSAR and Combinatorial Science</i> , 2001, 20, 327-334. | 1.2 | 12 |
| 35 | Methods of Combined Quantum/Classical (QM/MM) Modeling for Large Organometallic and Metallobiochemical Systems. <i>Computational Chemistry - Reviews of Current Trends</i> , 2001, , 69-135. | 0.4 | 6 |
| 36 | Multiple lines of conical intersections and nondegenerate ground state in T_2 Jahn-Teller systems. <i>Journal of Chemical Physics</i> , 2000, 112, 8470-8482. | 3.0 | 23 |

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|----|--|-----|-----------|
| 37 | Multiconical Intersections and Nondegenerate Ground State in E _g -Jahn-Teller Systems. <i>Physical Review Letters</i> , 1999, 83, 3009-3012. | 7.8 | 66 |
| 38 | A Method of Hybrid Quantum-Classical Calculations for Large Organometallic-Metallobiochemical Systems. <i>ACS Symposium Series</i> , 1998, , 66-91. | 0.5 | 4 |
| 39 | Limitations of density functional theory in application to degenerate states. <i>Journal of Computational Chemistry</i> , 1997, 18, 260-267. | 3.3 | 58 |
| 40 | Limitations of density functional theory in application to degenerate states. , 1997, 18, 260. | | 1 |
| 41 | REVIEW: THE CONCEPT OF VIBRONIC INTERACTIONS IN CRYSTAL STEREOCHEMISTRY OF TRANSITION METAL COMPOUNDS. <i>Journal of Coordination Chemistry</i> , 1995, 34, 289-338. | 2.2 | 15 |
| 42 | On the origin of dynamic instability of molecular systems. <i>Theoretica Chimica Acta</i> , 1984, 66, 161-172. | 0.8 | 88 |