

Olga A Babanova

List of Publications by Year in descending order

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37
papers

1,320
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471509

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citing authors

#	ARTICLE	IF	CITATIONS
1	Exceptional Superionic Conductivity in Disordered Sodium Decahydro- <i>closo</i> -dodecaborate. <i>Advanced Materials</i> , 2014, 26, 7622-7626.	21.0	221
2	Liquid-Like Ionic Conduction in Solid Lithium and Sodium Monocarba- <i>closo</i> -dodecaborates Near or at Room Temperature. <i>Advanced Energy Materials</i> , 2016, 6, 1502237.	19.5	190
3	Stabilizing Superionic-Conducting Structures via Mixed-Anion Solid Solutions of Monocarba- <i>closo</i> -borate Salts. <i>ACS Energy Letters</i> , 2016, 1, 659-664.	17.4	147
4	Complex high-temperature phase transitions in Li ₂ B ₁₂ H ₁₂ and Na ₂ B ₁₂ H ₁₂ . <i>Journal of Solid State Chemistry</i> , 2014, 212, 81-91.	2.9	109
5	Nuclear Magnetic Resonance Study of Atomic Motion in A ₂ B ₁₂ H ₁₂ (A = Na, K, Rb, Cs): Anion Reorientations and Na ⁺ Mobility. <i>Journal of Physical Chemistry C</i> , 2013, 117, 25961-25968.	3.1	82
6	Structural and Dynamical Properties of NaBH ₄ and KBH ₄ : NMR and Synchrotron X-ray Diffraction Studies. <i>Journal of Physical Chemistry C</i> , 2010, 114, 3712-3718.	3.1	70
7	Nuclear Magnetic Resonance Study of Reorientational Motion in $\hat{1}\pm$ -Mg(BH ₄) ₂ . <i>Journal of Physical Chemistry C</i> , 2010, 114, 12370-12374.	3.1	49
8	Anion Reorientations and Cation Diffusion in LiCB ₁₁ H ₁₂ and NaCB ₁₁ H ₁₂ : ¹ H, ⁷ Li, and ²³ Na NMR Studies. <i>Journal of Physical Chemistry C</i> , 2015, 119, 26912-26918.	3.1	45
9	Comparison of Anion Reorientational Dynamics in MCB ₉ H ₁₀ and M ₂ B ₁₀ H ₁₀ (M = Li, Na) via Nuclear Magnetic Resonance and Quasielastic Neutron Scattering Studies. <i>Journal of Physical Chemistry C</i> , 2017, 121, 1000-1012.	3.1	39
10	Nuclear magnetic resonance studies of atomic motion in borohydride-based materials: Fast anion reorientations and cation diffusion. <i>Journal of Alloys and Compounds</i> , 2015, 645, S428-S433.	5.5	34
11	Reorientational Motion in Alkali-Metal Borohydrides: NMR Data for RbBH ₄ and CsBH ₄ and Systematics of the Activation Energy Variations. <i>Journal of Physical Chemistry C</i> , 2011, 115, 10305-10309.	3.1	33
12	NMR Study of Reorientational Motion in Alkaline-Earth Borohydrides: $\hat{1}^2$ and $\hat{1}^3$ Phases of Mg(BH ₄) ₂ and $\hat{1}\pm$ and $\hat{1}^2$ Phases of Ca(BH ₄) ₂ . <i>Journal of Physical Chemistry C</i> , 2012, 116, 4913-4920.	3.1	33
13	Nuclear magnetic resonance studies of atomic motion in borohydrides. <i>Journal of Alloys and Compounds</i> , 2011, 509, S535-S539.	5.5	27
14	Structural and Dynamical Properties of Potassium Dodecahydro-monocarba- <i>closo</i> -dodecaborate: KCB ₁₁ H ₁₂ . <i>Journal of Physical Chemistry C</i> , 2020, 124, 17992-18002.	3.1	24
15	Anion and Cation Dynamics in Polyhydroborate Salts: NMR Studies. <i>Molecules</i> , 2020, 25, 2940.	3.8	23
16	Promoting Persistent Superionic Conductivity in Sodium Monocarba- <i>closo</i> -dodecaborate NaCB ₁₁ H ₁₂ via Confinement within Nanoporous Silica. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16689-16699.	3.1	20
17	Nuclear Magnetic Resonance Study of Atomic Motion in the Mixed Borohydride "Amide" Na ₂ (BH ₄)(NH ₂). <i>Journal of Physical Chemistry C</i> , 2014, 118, 14805-14812.	3.1	19
18	Anion Disorder in K ₃ BH ₄ B ₁₂ H ₁₂ and Its Effect on Cation Mobility. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5503-5514.	3.1	18

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19	Comparison of anion and cation dynamics in a carbon-substituted closo-hydroborate salt: ^1H and ^{23}Na NMR studies of solid-solution $\text{Na}_2(\text{CB}_9\text{H}_{10})(\text{CB}_{11}\text{H}_{12})$. <i>Journal of Alloys and Compounds</i> , 2019, 800, 247-253.	5.5	14
20	Effects of partial halide anion substitution on reorientational motion in NaBH_4 : A nuclear magnetic resonance study. <i>Journal of Alloys and Compounds</i> , 2015, 636, 293-297.	5.5	11
21	Nature of Decahydro-closo-decaborate Anion Reorientations in an Ordered Alkali-Metal Salt: $\text{Rb}_2\text{B}_{10}\text{H}_{10}$. <i>Journal of Physical Chemistry C</i> , 2018, 122, 15198-15207.	3.1	9
22	Na^+ diffusivity in carbon-substituted nido- and closo-hydroborate salts: Pulsed-field-gradient NMR studies of $\text{Na}_7\text{-CB}_{10}\text{H}_{13}$ and $\text{Na}_2(\text{CB}_9\text{H}_{10})(\text{CB}_{11}\text{H}_{12})$. <i>Journal of Alloys and Compounds</i> , 2021, 850, 156781.	5.5	9
23	Atomic Motion in the Complex Hydride $\text{Li}_3(\text{NH}_2)_2\text{Li}$ and ^1H Nuclear Magnetic Resonance Studies. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13459-13464.	3.1	8
24	Nuclear Magnetic Resonance Study of Anion and Cation Reorientational Dynamics in $(\text{NH}_4)_2\text{B}_{12}\text{H}_{12}$. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3256-3262.	3.1	8
25	NMR Study of the Dynamical Properties of $\text{LiLa}(\text{BH}_4)_3\text{Br}$ and $\text{LiLa}(\text{BH}_4)_3\text{I}$. <i>Applied Magnetic Resonance</i> , 2021, 52, 595-606.	1.2	8
26	Lithium-ion diffusivity in complex hydrides: Pulsed-field-gradient NMR studies of $\text{LiLa}(\text{BH}_4)_3\text{Cl}$, $\text{Li}_3(\text{NH}_2)_2\text{I}$ and $\text{Li}_1\text{-CB}_9\text{H}_{10}$. <i>Solid State Ionics</i> , 2021, 362, 115585.	2.7	7
27	Low-Temperature Rotational Tunneling of Tetrahydroborate Anions in Lithium Benzimidazolate-Borohydride $\text{Li}_2(\text{blm})\text{BH}_4$. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20789-20799.	3.1	6
28	Nuclear Magnetic Resonance Study of Atomic Motion in Bimetallic Perovskite-Type Borohydrides $\text{ACa}(\text{BH}_4)_4\text{A}_3$ ($\text{A} = \text{K}, \text{Rb}, \text{or Cs}$). <i>Journal of Physical Chemistry C</i> , 2015, 119, 19689-19696.	3.1	5
29	NMR Studies of Lithium Diffusion in $\text{Li}_3(\text{NH}_2)_2\text{I}$ Over Wide Range of Li^+ Jump Rates. <i>Zeitschrift Fur Physikalische Chemie</i> , 2017, 231, .	2.8	4
30	Nuclear magnetic resonance study of anion and cation dynamics in CsSiH_3 . <i>Journal of Alloys and Compounds</i> , 2019, 781, 913-918.	5.5	4
31	Nuclear Magnetic Resonance Study of Ball-Milled TiH_2 with C, B, and BN Additives. <i>Journal of Physical Chemistry C</i> , 2010, 114, 646-651.	3.1	3
32	Nuclear magnetic resonance study of atomic motion in the mixed borohydride-amide $\text{Li}_2(\text{BH}_4)(\text{NH}_2)$. <i>Journal of Alloys and Compounds</i> , 2020, 823, 153821.	5.5	3
33	Anion reorientations and cation diffusion in a carbon-substituted sodium nido-borate $\text{Na}_7,9\text{-C}_2\text{B}_9\text{H}_{12}$: ^1H and ^{23}Na NMR studies. <i>Zeitschrift Fur Physikalische Chemie</i> , 2022, 236, 839-851.	2.8	3
34	Dynamical properties of lithium borohydride " ammine composite $\text{LiBH}_4\cdot\text{NH}_3$: A nuclear magnetic resonance study. <i>Journal of Alloys and Compounds</i> , 2022, 894, 162446.	5.5	3
35	Effect of mechanical milling on the mobility of hydrogen in the $\text{ZrTi}_2\text{-H}$ system stabilized by hydrogen: NMR data. <i>Physics of Metals and Metallography</i> , 2010, 110, 241-249.	1.0	2
36	Nuclear magnetic resonance study of hydrogen dynamics in $\text{Al}(\text{BH}_4)_4$ -based hypersalts $\text{M}[\text{Al}(\text{BH}_4)_4]$ ($\text{M} = \text{Na}, \text{K}, \text{Rb}, \text{Cs}$). <i>Journal of Alloys and Compounds</i> , 2018, 745, 179-186.	5.5	2

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37	Low-Temperature Rotational Tunneling of Tetrahydroborate Anions in Lithium Benzimidazolate-Borohydride Li(bIm)BH. Journal of Physical Chemistry C, 2019, 123, .	3.1	0