

Lev Yu Rusin

List of Publications by Year in descending order

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62
papers

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567281

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62
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231
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#	ARTICLE	IF	CITATIONS
1	A high resolution crossed molecular beam investigation of the absolute cross sections and product rotational states for the reaction $F+D_2(v_i=0; j_i=0, 1) \rightarrow DF(v_f; j_f) + D$. <i>Journal of Chemical Physics</i> , 1994, 101, 2106-2125.	3.0	85
2	The $H_2 \cdots Ne$ interaction. <i>Journal of Chemical Physics</i> , 1994, 101, 8800-8811.	3.0	44
3	State-to-state differential cross sections for the reaction $F+D_2$ at 90 meV: A crossed molecular beam experiment and a quantum mechanical study. <i>Journal of Chemical Physics</i> , 1998, 108, 9694-9710.	3.0	44
4	A scattering study of the dependence of the $F + D_2(j_i = 0, 1, 2) \rightarrow DF(\hat{l}/2f, j_f) + D$ reaction on the initial rotational state. <i>Chemical Physics Letters</i> , 1995, 232, 197-206.	2.6	42
5	Diffraction and rotational transitions in the scattering of D_2 from $Cu(001)$ at energies up to 250 meV. <i>Journal of Chemical Physics</i> , 1998, 109, 8036-8044.	3.0	39
6	Rotationally resolved differential scattering cross sections for the reaction $F+\text{para-}H_2(v=0, \hat{\alpha} \in \hat{S}_j=0) \rightarrow HF(v \in \hat{\epsilon}^2=2, \hat{\alpha} \in \hat{S}_3, \hat{\alpha} \in \hat{S}_j \hat{\alpha} \in \hat{\epsilon}^2) + H$. <i>Journal of Chemical Physics</i> , 1999, 110, 10231-10234.	3.0	36
7	Inelastic $F \cdots H_2$ scattering. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1993, 89, 1475-1480.	1.7	28
8	Molecular beam scattering experiments on the abstraction and exchange reactions of deuterium atoms with the hydrogen halides HCl, HBr, and HI. <i>Journal of Chemical Physics</i> , 1978, 68, 4490-4504.	3.0	25
9	New Results on the Reactive Scattering of Atomic Fluorine by Molecular Deuterium at 3.2 kcal/mol Collision Energy. <i>Zeitschrift Fur Physikalische Chemie</i> , 1995, 188, 197-214.	2.8	22
10	A wave packet propagation study of inelastic and reactive $F+D_2$ scattering. <i>Journal of Chemical Physics</i> , 1995, 103, 2482-2494.	3.0	21
11	Comparison of experimental time-of-flight spectra of the HF products from the $F+H_2$ reaction with exact quantum mechanical calculations. <i>Journal of Chemical Physics</i> , 2005, 122, 1343-14.	3.0	21
12	Anomalous HF product rotational distributions in the $F + H_2$ reaction at threshold collision energies. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 501-505.	2.8	19
13	Dynamical Mechanisms of Direct Three-Body Recombination. <i>Journal of Physical Chemistry A</i> , 2011, 115, 7055-7064.	2.5	19
14	Evidence for a bound HeH_2 halo molecule by diffraction from a transmission grating. <i>Journal of Chemical Physics</i> , 2004, 121, 625-627.	3.0	16
15	A test of the semiclassical Wigner method for the reaction $F + H_2 \rightarrow H + HF$. <i>Chemical Physics</i> , 1995, 195, 243-258.	1.9	15
16	An intense fluorine atom beam source. <i>Journal Physics D: Applied Physics</i> , 1996, 29, 1885-1893.	2.8	14
17	XUV laser-plasma source based on solid Ar filament. <i>Review of Scientific Instruments</i> , 2007, 78, 103509.	1.3	14
18	The dynamics of direct three-body recombination of ions. <i>Russian Journal of Physical Chemistry B</i> , 2008, 2, 499-511.	1.3	14

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19	Long-Range Interaction in Some Simple Open-Shell Systems, Including Rare-Gas Sulfides: Features of Post-Adiabatic Potentials and Couplings. Journal of Physical Chemistry A, 2004, 108, 8731-8742.	2.5	13
20	Dynamics of two-stage direct three-body recombination of ions. Chemical Physics, 2013, 411, 26-34.	1.9	13
21	Detailed dynamics of three-body recombination of ions in central collisions. Chemical Physics, 2012, 392, 149-159.	1.9	11
22	A further test of the shape and anisotropy of the $F^+ - H_2$ interaction potential. Chemical Physics, 1995, 200, 405-413.	1.9	10
23	Stabilization of diatomic products in recombination of heavy ions. Russian Journal of Physical Chemistry B, 2012, 6, 583-592.	1.3	10
24	Elastic scattering studies of the van der Waals potential for $D^+ - HCl$ and $D^+ - HBr$. Journal of Chemical Physics, 1977, 66, 3837-3838.	3.0	9
25	“Eclipse” Effect in the Scattering of Weakly Bound Helium Clusters. Physical Review Letters, 2004, 93, 163402.	7.8	9
26	Mechanism of the direct three-body recombination of atomic ions in a central collision. Russian Journal of Physical Chemistry B, 2012, 6, 475-485.	1.3	9
27	A hard sphere model for direct three-body recombination of heavy ions. Russian Journal of Physical Chemistry B, 2014, 8, 769-782.	1.3	9
28	Effectiveness of the third body in the direct recombination of ions. Russian Journal of Physical Chemistry B, 2014, 8, 261-271.	1.3	9
29	Statistical dynamics of direct three-body recombination of heavy ions in the presence of argon and xenon atoms. Russian Journal of Physical Chemistry B, 2016, 10, 553-560.	1.3	9
30	Kinematic Mechanism for the Formation of Two-Body Ionic Products in Collision-Induced Dissociation of Cesium Halides. The Journal of Physical Chemistry, 1995, 99, 15502-15508.	2.9	8
31	Ion source with longitudinal ionization of a molecular beam by an electron beam in a magnetic field. Instruments and Experimental Techniques, 2006, 49, 709-713.	0.5	8
32	Ionic dissociation of CsBr induced by collisions with Hg: trajectory simulation. Chemical Physics Letters, 1990, 175, 608-612.	2.6	7
33	Elastic and rotationally inelastic scattering of fluorine atoms by deuterium molecules at 112 meV collision energy. Chemical Physics, 1998, 229, 21-35.	1.9	7
34	Two Mechanisms of Recombination of Atomic Ions. Russian Journal of Physical Chemistry B, 2018, 12, 957-964.	1.3	7
35	Ionic dissociation of CsBr induced by collisions with Hg: Molecular beam investigation. Chemical Physics Letters, 1990, 170, 502-508.	2.6	6
36	A study of the detailed dynamics of the collision-induced dissociation of CsBr by the visualization of elementary process trajectories. Russian Journal of Physical Chemistry B, 2011, 5, 177-187.	1.3	6

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37	Dynamics of third order direct three-body recombination of heavy ions. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 7783-7798.	2.8	6
38	Ionic dissociation of CsBr induced by collisions with Hg: molecular-ion formation. <i>Chemical Physics Letters</i> , 1991, 180, 541-544.	2.6	5
39	A hard-sphere model for the reactions of two diatomic molecules with ionic bond. <i>Chemical Physics</i> , 1995, 199, 195-206.	1.9	5
40	Post-adiabatic approach to atomic and molecular processes: The van der Waals interactions of some open shell systems. <i>Theoretica Chimica Acta</i> , 1995, 90, 225-256.	0.8	5
41	Detailed dynamics of direct three-body recombination of singly charged ions. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 3129-3143.	2.8	5
42	Multiple impacts and energy transfer in a three-body system for noncollinear collisions. <i>Theoretica Chimica Acta</i> , 1993, 87, 195-213.	0.8	4
43	An improved source of intense beams of fluorine atoms. <i>Journal Physics D: Applied Physics</i> , 2006, 39, 4186-4193.	2.8	4
44	Long-range features of the F-HBr and F-HI potential energy surfaces from crossed molecular-beam experiments: a model analysis. <i>Chemical Physics Letters</i> , 1991, 177, 536-542.	2.6	3
45	Simulation of the reactive scattering of F+D2 on a model family of potential energy surfaces with various topographies: The correlation approach. <i>Journal of Chemical Physics</i> , 2004, 120, 800-812.	3.0	3
46	The complete T \hat{t} 'V,R energy conversion in three-body collisions within the hard sphere model. <i>Journal of Chemical Physics</i> , 2005, 122, 074322.	3.0	3
47	Excitation functions of cation formation in collisions of diatomic molecules with an ionic bond: CsCl + RbI. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1996, 92, 1683.	1.7	2
48	Detection of oxygen atoms in a high pressure surfatron microwave discharge via two-photon four-wave mixing. <i>Applied Physics B: Lasers and Optics</i> , 1997, 64, 613-618.	2.2	2
49	Effect of the angular dependence of the barrier height on the features of the F+H2 reaction. <i>Chemical Physics</i> , 1998, 232, 307-320.	1.9	2
50	Structure of small hydrogen nanoclusters containing ortho-molecules. <i>Russian Journal of Physical Chemistry B</i> , 2009, 3, 743-752.	1.3	2
51	On the maximum in the differential cross sections of the F + H2 reaction in the region of small scattering angles. <i>Russian Journal of Physical Chemistry B</i> , 2009, 3, 857-863.	1.3	2
52	The optimization of potential energy surface parameters for the CsCl + RbI system with the use of linear regression analysis. <i>Russian Journal of Physical Chemistry B</i> , 2010, 4, 353-369.	1.3	2
53	A simple method for measuring time-of-flight spectra of a gas-dynamic molecular beam. <i>Instruments and Experimental Techniques</i> , 2007, 50, 366-369.	0.5	1
54	Dynamics of a heavy ionic pair in a cavity with an elastic or inelastic boundary, crosspieces, and fixed charges of opposite sign. <i>Russian Journal of Physical Chemistry B</i> , 2013, 7, 355-370.	1.3	1

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55	Dissociation of Potassium Iodide at a Graphite Surface within the Framework of an Impulsive Model. Russian Journal of Physical Chemistry B, 2018, 12, 1082-1093.	1.3	1
56	Flame spectra from the interaction of fluorine and some halogen-containing compounds. Journal of Applied Spectroscopy, 1966, 4, 90-93.	0.7	0
57	Momentum model for dissociative ionization in the collision of inert-gas atoms with alkali-halide molecules. Theoretical and Experimental Chemistry, 1982, 17, 453-458.	0.8	0
58	Dynamics of Collision-Induced Dissociation of Two Molecules with Ionic Bond. AIP Conference Proceedings, 2005, , .	0.4	0
59	Efficiency of detection of Cs ⁺ and Cl ⁻ ions with a D ⁺ D ⁻ 7-2 microchannel electron multiplier. Instruments and Experimental Techniques, 2008, 51, 562-566.	0.5	0
60	A microwave discharge source operating at pressures of several atmospheres. Instruments and Experimental Techniques, 2009, 52, 394-399.	0.5	0
61	Statistical characteristics of the motion of a pair of heavy ions in non-convex cavities of complicated geometry with fixed crosspieces and charges. Russian Journal of Physical Chemistry B, 2015, 9, 849-865.	1.3	0
62	Scattering of particles from a solid surface: the impulsive model of composite encounters. Rendiconti Lincei, 2019, 30, 785-795.	2.2	0