Alexei A Buchachenko

List of Publications by Year in Descending Order

138 papers	1,913 citations	24 h-index	33 g-index
149 ext. papers	2,038 ext. citations	3 avg, IF	4.74 L-index

#	Paper	IF	Citations
138	Modeling of the thermal migration mechanisms of atomic oxygen in Ar, Kr, and Xe crystals. *Journal of Chemical Physics*, **2021**, 154, 044305	3.9	1
137	Molecular dynamics simulations of the Ba+ ion mobility in liquid xenon. *Journal of Physics: Conference Series*, **2021**, 1740, 012033	0.3	
136	Mobility of the Singly-Charged Lanthanide and Actinide Cations: Trends and Perspectives. *Frontiers in Chemistry*, **2020**, 8, 438	5	4
135	Trapping sites of Li atom in the rare gas crystals Ar, Kr, and Xe: Analysis of stability and manifestation in the EPR spectra. *Low Temperature Physics*, **2020**, 46, 165-172	0.7	2
134	Exploiting transport properties for the detection of optical pumping in heavy ions. *Physical Review A*, **2020**, 102,	2.6	5
133	Laser Resonance Chromatography of Superheavy Elements. *Physical Review Letters*, **2020**, 125, 023002	7.4	4
132	Weak bonding of the hydrogen molecule by the S-state lanthanide ions Eu+, Yb+ and Lu+ from ab initio calculations. *Chemical Physics Letters*, **2020**, 756, 137812	2.5	
131	Extended combination rule for like-atom dipole dispersion coefficients.. *Journal of Chemical Physics* , **2020**, 153, 064110	3.9	
130	Triplet emission of atomic ytterbium isolated in a xenon matrix. *Low Temperature Physics*, **2019**, 45, 707-714	0.7	2
129	Empirically Modified Potentials of Interaction between Rare Gases for Matrix Isolation Problems. *Russian Journal of Physical Chemistry A*, **2019**, 93, 1505-1512	0.7	1
128	Accommodation of a dimer in an Ar-like lattice: exploring the generic structural motifs. *Physical Chemistry Chemical Physics*, **2019**, 21, 16549-16563	3.6	1
127	Ab initio study of the mobility of Gd+ ions in He and Ar gases. *International Journal of Mass Spectrometry*, **2019**, 443, 86-92	1.9	5
126	Weakly bound molecules as sensors of new gravitylike forces. *Scientific Reports*, **2019**, 9, 14807	4.9	12
125	Ab initio interaction potentials of the Ba, Ba complexes with Ar, Kr, and Xe in the lowest excited states. *Journal of Chemical Physics*, **2019**, 150, 064314	3.9	3
124	Computational study of the stable atomic trapping sites in Ar lattice. *Low Temperature Physics*, **2019**, 45, 301-309	0.7	6
123	Stable axially symmetric atomic impurity in an fcc solid-Ba in rare gases. *Journal of Chemical Physics*, **2019**, 151, 121104	3.9	2
122	Polarizabilities, dispersion coefficients, and retardation functions at the complete basis set CCSD limit: From Be to Ba plus Yb. *Journal of Chemical Physics*, **2019**, 151, 214302	3.9	3

121	Interaction potentials and transport properties of Ba, Ba, and Ba in rare gases from He to Xe. *Journal of Chemical Physics*, **2018**, 148, 154304	3.9	10
120	Phase Locking between Different Partial Waves in Atom-Ion Spin-Exchange Collisions. *Physical Review Letters*, **2018**, 121, 173402	7.4	14
119	Modeling of Manganese Atom and Dimer Isolated in Solid Rare Gases: Structure, Stability, and Effect on Spin Coupling. *Journal of Physical Chemistry A*, **2017**, 121, 2429-2441	2.8	8
118	Cold collisions of heavy 2 molecules with alkali-metal atoms in a magnetic field: Ab initio analysis and prospects for sympathetic cooling of SrOH(2) by Li(S2). *Physical Review A*, **2017**, 95,	2.6	16
117	Probing Non-Newtonian gravity by photoassociation spectroscopy. *Journal of Physics: Conference Series*, **2017**, 810, 012014	0.3	5
116	Beyond-Born-Oppenheimer effects in sub-kHz-precision photoassociation spectroscopy of ytterbium atoms. *Physical Review A*, **2017**, 96,	2.6	12
115	Ab Initio Characterization of the Electrostatic Complexes Formed by H2 Molecule and Cr(+), Mn(+), Cu(+), and Zn(+) Cations. *Journal of Physical Chemistry A*, **2016**, 120, 5006-15	2.8	5
114	Spin-Orbit Interactions and Quantum Spin Dynamics in Cold Ion-Atom Collisions. *Physical Review Letters*, **2016**, 117, 143201	7.4	14
113	Adiabatic channel capture theory applied to cold atom olecule reactions: Li + CaH $to $ LiH + Ca at 1K. *New Journal of Physics*, **2015**, 17, 035010	2.9	13
112	Rate coefficients of the elementary stages of heterogeneous catalytic recombination of dissociated air on thermal-protective coatings. *Fluid Dynamics*, **2015**, 50, 453-462	0.7	3
111	Heat- and light-induced transformations of Yb trapping sites in an Ar matrix. *Journal of Chemical Physics*, **2015**, 143, 174306	3.9	7
110	Test of the interaction potential energy for Na+-H by gaseous ion transport data. *Journal of Chemical Physics*, **2014**, 141, 114305	3.9	3
109	Interaction of the beryllium cation with molecular hydrogen and deuterium. *Journal of Physical Chemistry A*, **2014**, 118, 6711-20	2.8	7
108	Charge transfer in cold collisions of rubidium atoms with calcium and ytterbium ions. *Journal of Physics: Conference Series*, **2014**, 572, 012009	0.3	1
107	Electric properties of the Cu+, Ag+ and Au+ cations in the ground 1S and excited 3D, 1D electronic states. *European Physical Journal D*, **2014**, 68, 1	1.3	
106	Mobility of singly-charged lanthanide cations in rare gases: theoretical assessment of the state specificity. *Journal of Chemical Physics*, **2014**, 140, 114309	3.9	19
105	Modeling of catalytic activity of an Al2O3 surface on the basis of the first principles. *Moscow University Mechanics Bulletin*, **2013**, 68, 8-14	0.4	2
104	Closed model of oxygen recombination on an Al2O3 surface. *Russian Journal of Physical Chemistry B* , **2013**, 7, 88-95	1.2	4

103	Charge transfer in cold Yb++Rb collisions. *Physical Review A*, **2013**, 87,	2.6	28
102	Spin-orbit suppression of cold inelastic collisions of aluminum and helium. *Physical Review Letters*, **2013**, 110, 173202	7.4	3
101	Zeeman relaxation induced by spin-orbit coupling in cold antimony-helium collisions. *Physical Review A*, **2013**, 88,	2.6	1
100	Ab initio spin-orbit calculations on the lowest states of the nickel dimer. *Journal of Chemical Physics* , **2012**, 136, 214304	3.9	6
99	Electronic spectroscopy of ytterbium in a neon matrix. *Journal of Chemical Physics*, **2012**, 137, 204315	3.9	3
98	Properties of the B+-H2 and B+-D2 complexes: A theoretical and spectroscopic study. *Journal of Chemical Physics*, **2012**, 137, 124312	3.9	6
97	Ab initio long-range interaction and adiabatic channel capture model for ultracold reactions between the KRb molecules. *Journal of Chemical Physics*, **2012**, 137, 114305	3.9	14
96	Numerical method of quantum capture probability determination for molecular collisions at ultralow temperatures. *Moscow University Chemistry Bulletin*, **2012**, 67, 159-167	0.5	5
95	Interactions of ThO(X) with He, Ne and Ar from the ab initio coupled cluster and symmetry adapted perturbation theory calculations. *Chemical Physics*, **2012**, 399, 50-58	2.3	3
94	Ultracold spin-polarized mixtures of 2□molecules with S-state atoms: Collisional stability and implications for sympathetic cooling. *Physical Review A*, **2011**, 84,	2.6	35
93	Rotationally resolved infrared spectrum of the Na(+)-D2 complex: an experimental and theoretical study. *Journal of Chemical Physics*, **2011**, 134, 214302	3.9	8
92	He-ThO(1□) interactions at low temperatures: elastic and inelastic collisions, transport properties, and complex formation in cold 4He gas. *Journal of Chemical Physics*, **2011**, 134, 144301	3.9	4
91	Ab initio dipole polarizabilities and quadrupole moments of the lowest excited states of atomic Yb. *European Physical Journal D*, **2011**, 61, 291-296	1.3	19
90	Potential energy surface and rovibrational calculations for the Mg+-H2 and Mg+-D2 complexes. *Journal of Chemical Physics*, **2011**, 134, 044310	3.9	12
89	Anisotropy of the static dipole polarizability induced by the spin□orbit interaction: the S-state atoms N□i, Cr, Mo and Re. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2011**, 467, 1310-1328	2.4	10
88	Dynamics and mechanism of the non-adiabatic transitions from the ungerade I2(D0+u) state induced by collisions with rare gas atoms. *Journal of Chemical Physics*, **2010**, 133, 244304	3.9	8
87	Electronic structure and spin coupling of the manganese dimer: The state of the art of ab initio approach. *Journal of Chemical Physics*, **2010**, 132, 024312	3.9	22
86	Communication: Electric properties of the ThO(X (1)Sigma(+)) molecule. *Journal of Chemical Physics*, **2010**, 133, 041102	3.9	22

85	State-interacting spin-orbit configuration interaction method for J-resolved anisotropic static dipole polarizabilities: Application to Al, Ga, In, and Tl atoms. *Russian Journal of Physical Chemistry A* , **2010**, 84, 2325-2333	0.7	3
84	Study of ArO- and ArO via slow photoelectron velocity-map imaging spectroscopy and Ab initio calculations. *Journal of Physical Chemistry A*, **2009**, 113, 4631-8	2.8	7
83	Study of KrO- and KrO via slow photoelectron velocity-map imaging spectroscopy and ab initio calculations. *Journal of Physical Chemistry A*, **2009**, 113, 14439-46	2.8	7
82	Suppression of Zeeman relaxation in cold collisions of P21/2 atoms. *Physical Review A*, **2009**, 80,	2.6	11
81	Interaction potentials, spectroscopy, and transport properties of the Br+-RG systems (RG = He-Ar). *Journal of Physical Chemistry A*, **2009**, 113, 14431-8	2.8	6
80	Interactions and collisions of cold metal atoms in magnetic traps. *Physica Scripta*, **2009**, 80, 048109	2.6	5
79	Europium dimer: van der Waals molecule with extremely weak antiferromagnetic spin coupling. *Journal of Chemical Physics*, **2009**, 131, 241102	3.9	10
78	The Na(+)-H(2) cation complex: Rotationally resolved infrared spectrum, potential energy surface, and rovibrational calculations. *Journal of Chemical Physics*, **2008**, 129, 184306	3.9	28
77	Interactions between anionic and neutral bromine and rare gas atoms. *Journal of Chemical Physics*, **2008**, 128, 064317	3.9	9
76	Photoelectron spectroscopy of the Cl(-)...H(2)D(2) anions: a model beyond the rotationless and Franck-Condon approximations. *Journal of Chemical Physics*, **2008**, 128, 154317	3.9	1
75	Theoretical and experimental studies of collision-induced electronic energy transfer from v=0-3 of the E(0g +) ion-pair state of Br2: collisions with He and Ar. *Journal of Chemical Physics*, **2008**, 128, 184311	3.9	3
74	Dynamics and mechanism of the E-->D, D'beta, gamma, and delta nonadiabatic transitions induced in molecular iodine by collisions with CF4 and SF6 molecules. *Journal of Chemical Physics*, **2008**, 129, 114309	3.9	5
73	Spin-orbit interaction and large inelastic rates in bismuth-helium collisions. *Physical Review A*, **2008**, 78,	2.6	10
72	Ab initio interaction potential of the spin-polarized manganese dimer. *Chemical Physics Letters*, **2008**, 459, 73-76	2.5	8
71	Electronic to vibrational energy transfer assisted by interacting transition dipole moments: a quantum model for the nonadiabatic I2(E) + CF4 collisions. *Journal of Physical Chemistry A*, **2007**, 111, 8959-67	2.8	6
70	On the role of scattering resonances in the F+HD reaction dynamics. *Journal of Physical Chemistry A* , **2007**, 111, 12538-49	2.8	33
69	Separation of ortho- and para-hydrogen in van der Waals complex formation. *ChemPhysChem*, **2007**, 8, 815-8	3.2	16
68	Non-adiabatic E -> D, D?, [illegible]transitions in the first ion-pair tier of molecular iodine induced by collisions with I2, He, Ar, Kr, Xe. *Chemical Physics Letters*, **2007**, 436, 1-6	2.5	16

67	The dynamics of nonadiabatic transitions in collisions between the I2(E) and I2(X) molecules. *Russian Journal of Physical Chemistry A*, **2007**, 81, 58-68	0.7	4
66	Interactions of lanthanide atoms: Comparative ab initio study of YbHe, Yb 2 and TmHe, TmYb potentials. *European Physical Journal D*, **2007**, 45, 147-153	1.3	28
65	Diffuse basis functions for small-core relativistic pseudopotential basis sets and static dipole polarizabilities of selected lanthanides La, Sm, Eu, Tm and Yb. *Structural Chemistry*, **2007**, 18, 769-772	1.8	32
64	The Al+ -H(2) cation complex: rotationally resolved infrared spectrum, potential energy surface, and rovibrational calculations. *Journal of Chemical Physics*, **2007**, 127, 164310	3.9	31
63	Ab initio potential energy surface, infrared spectra, and dynamics of the ion-molecule complexes between Br- and H2, D2, and HD. *Journal of Chemical Physics*, **2006**, 125, 114313	3.9	11
62	Interaction potentials for Br(-)-Rg (Rg=He-Rn): spectroscopy and transport coefficients. *Journal of Chemical Physics*, **2006**, 125, 64305	3.9	16
61	Ab initio study of Tm-He interactions and dynamics in a magnetic trap. *Physical Review A*, **2006**, 74,	2.6	13
60	van der Waals interactions and dipole polarizabilities of lanthanides: Tm(2F)-He and Yb(1S)-He potentials. *Journal of Chemical Physics*, **2006**, 124, 114301	3.9	23
59	Interactions of 2P atoms with closed-shell diatomic molecules: alternative diabatic representations for the electronic anisotropy. *Journal of Physical Chemistry A*, **2006**, 110, 5458-63	2.8	5
58	Intensities of the photoelectron spectra of weakly bound anions: A complex of an atomic anion with a diatomic molecule. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2006**, 100, 530-538	0.7	1
57	Resonant optical excitation of the I2 ion-pair states through the RgI2 complexes in the valence states correlating to the 2P1/2+2P1/2 limit. *Chemical Physics Letters*, **2006**, 427, 259-264	2.5	20
56	Long-range interaction and the dynamics of nonadiabatic transitions in collisions of the I2(E) molecule with inert gas atoms. *Russian Journal of Physical Chemistry A*, **2006**, 80, 1957-1967	0.7	5
55	Interactions in open-shell clusters: ab initio study of pre-reactive complex O(3P) + HCl. *Journal of Physical Chemistry A*, **2005**, 109, 11484-94	2.8	7
54	Interaction potentials of the RG-I anions, neutrals, and cations (RG = He, Ne, Ar). *Journal of Chemical Physics*, **2005**, 122, 194311	3.9	35
53	Collision-induced nonadiabatic transitions in the second-tier ion-pair states of iodine molecule: experimental and theoretical study of the I2(f0g+) collisions with rare gas atoms. *Journal of Chemical Physics*, **2005**, 122, 204318	3.9	20
52	Electronic interaction anisotropy between open-shell lanthanide atoms and helium from cold collision experiment. *Journal of Chemical Physics*, **2005**, 123, 101101	3.9	13
51	Competition between adiabatic and nonadiabatic fragmentation pathways in the unimolecular decay of the ArI2(B) van der Waals complex. *Journal of Chemical Physics*, **2005**, 122, 34303	3.9	15
50	Isomeric interconversion in the linear Cl(-)-HD anion complex. *Journal of Chemical Physics*, **2004**, 121, 2085-93	3.9	15

49	The open-shell interaction of He with the B 3Piu(0+) state of Br2: an ab initio study and its comparison with a diatomics-in-molecule perturbation model. *Journal of Chemical Physics*, **2004**, 120, 2182-92	3.9	19
48	Quantum scattering equations for non-adiabatic transitions in collisions between a Hund case (c) diatomic molecule and a structureless atom with application to I2(E0+g) + Ar. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2004**, 37, 1605-1619	1.3	10
47	Collision-induced non-adiabatic transitions between the ion-pair states of molecular iodine: A challenge for experiment and theory. *Physical Chemistry Chemical Physics*, **2004**, 6, 3201	3.6	50
46	Ar I 2 : A model system for complex dynamics. *International Reviews in Physical Chemistry*, **2003**, 22, 153-202	7	65
45	Modeling of the non-adiabatic E0+g->D0+u transitions induced by Ar in molecular iodine: a first attempt. *Chemical Physics Letters*, **2003**, 370, 563-571	2.5	13
44	Oriented dynamics in van der Waals complexes. *Journal of Molecular Spectroscopy*, **2003**, 222, 31-45	1.3	11
43	Ab initio potential energy and dipole moment surfaces, infrared spectra, and vibrational predissociation dynamics of the 35Cl H2/D2 complexes. *Journal of Chemical Physics*, **2003**, 119, 12931-12945	3.9	43
42	Dynamics of O(3Pj)+Rg collisions on ab initio and scattering potentials. *Journal of Chemical Physics*, **2002**, 116, 1457-1467	3.9	20
41	Vibrational predissociation of NeBr2 (X, v=1) using an ab initio potential energy surface. *Journal of Chemical Physics*, **2002**, 117, 10019-10025	3.9	25
40	He79Br2 B,v=8<-X,v?=0 excitation spectrum: Ab initio prediction and spectroscopic manifestation of a linear isomer. *Journal of Chemical Physics*, **2002**, 117, 6117-6120	3.9	35
39	Ab initio potentials for the S(3Pj) are gas dimers: Implementation for elastic and inelastic collisions and comparison with scattering potentials. *Journal of Chemical Physics*, **2002**, 116, 9269-9280	3.9	16
38	Resonance and reversibility of vibrational relaxation of HF in high temperature Ar bath gas. *Journal of Chemical Physics*, **2002**, 117, 166-171	3.9	14
37	Ab initio simulations of the KrO anion photoelectron spectra. *Journal of Chemical Physics*, **2002**, 117, 2629-2634	3.9	15
36	Vibrational predissociation of ArHF: a test of global semiempirical potential energy surfaces. *Physical Chemistry Chemical Physics*, **2002**, 4, 4992-4998	3.6	13
35	Electronic and vibrational predissociation in ArI2 photodissociation dynamics. *Journal of Chemical Physics*, **2002**, 116, 8367	3.9	18
34	Modeling the H5+ potential-energy surface: a first attempt. *Theoretical Chemistry Accounts*, **2001**, 106, 426-433	1.9	38
33	On the role of interaction anisotropy in vibrational relaxation of HF and HCl by Ar. *Chemical Physics Letters*, **2001**, 335, 273-280	2.5	13
32	Theoretical prediction of the ArO anion ZEKE photoelectron spectrum. *Chemical Physics Letters*, **2001**, 347, 415-420	2.5	4

31	The I2(B) predissociation by solving an inverse atoms-in-molecule problem. *Molecular Physics*, **2001**, 99, 91-101	1.7	10
30	ArI2(X)->Ar+I2(B) photodissociation: Comparison between linear and T-shaped isomers dynamics. *Journal of Chemical Physics*, **2001**, 115, 6961-6973	3.9	25
29	Ultracold inelastic atomic collisions: Threshold relaxation of O(3P0) by He. *Physical Review A*, **2001**, 64,	2.6	7
28	Ab initio zero electron kinetic energy spectroscopy of the $ArCl_2^-$ and $KrCl_2^-$ anions. *Journal of Chemical Physics*, **2001**, 114, 9929-9937	3.9	20
27	Complete basis set extrapolation limit for electronic structure calculations: Energetic and nonenergetic properties of HeBr and HeBr2 van der Waals dimers. *Journal of Chemical Physics*, **2001** , 115, 10438	3.9	48
26	Collision and transport properties of Rg+Cl(2P) and Rg+Cl^-(1S) (Rg=Ar, Kr) from ab initio potentials. *Journal of Chemical Physics*, **2001**, 114, 9919-9928	3.9	35
25	Quantum-mechanical study of vibrational relaxation of HF in collisions with Ar atoms. *Journal of Chemical Physics*, **2001**, 114, 1249-1258	3.9	26
24	Blueshifts of the B<-X excitation spectra of He79Br2 using a DIM-based potential. *Chemical Physics Letters*, **2000**, 318, 578-584	2.5	13
23	Ab-initio-based model for the charge transfer mechanisms in Ar+ + H2O collisions. *International Journal of Mass Spectrometry*, **2000**, 203, 19-29	1.9	
22	Quantum and semiclassical study of the intramultiplet transitions in collisions of Cl(2P) and O(3P) with He, Ar and Xe. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2000**, 33, 4551-4564	1.3	20
21	Theoretical simulations of the He79Br2 B, v=8<-X, v?=0 excitation spectrum: Spectroscopic manifestation of a linear isomer?. *Journal of Chemical Physics*, **2000**, 113, 4620-4628	3.9	24
20	Ab initio based study of the ArO_2^- photoelectron spectra: Selectivity of spin–orbit transitions. *Journal of Chemical Physics*, **2000**, 112, 5852-5865	3.9	31
19	ArHF vibrational predissociation dynamics using the diatomics-in-molecule potential energy surface. *Journal of Chemical Physics*, **1999**, 111, 2470-2477	3.9	22
18	A combined experimental-theoretical study of the vibrational predissociation and product rotational distributions for high vibrational levels of He79Br2. *Journal of Chemical Physics*, **1999**, 110, 256-266	3.9	34
17	Predissociation of the Rg?I2(B)(Rg=Ne, Ar, Kr) complexes: simulations based on the first-order diatomics-in-molecule perturbation theory. *Chemical Physics Letters*, **1998**, 292, 273-281	2.5	14
16	Theoretical study of VRT energy transfer in Ne + I2(B) collisions using a spectroscopic interaction potential. *Journal of the Chemical Society, Faraday Transactions*, **1998**, 94, 2307-2313		4
15	RG+Cl(2P) (RG=He, Ne, Ar) interactions: Ab initio potentials and collision properties. *Journal of Chemical Physics*, **1998**, 109, 2144-2154	3.9	36
14	Classical vibrational predissociation dynamics: The effects of phase-space bifurcations. *Journal of Chemical Physics*, **1998**, 108, 6282-6290	3.9	7

13	Diatomics-in-molecules description of the RgHal2 rare gas□halogen van der Waals complexes with applications to He□Cl2. *Journal of Chemical Physics*, **1997**, 106, 4575-4588	3.9	21
12	First-order intermolecular diatomics-in-molecule potentials. Potential energy surfaces, spectra, and fragmentation dynamics of the Ne?Cl2 complex. *Journal of Chemical Physics*, **1997**, 106, 10134-10144	3.9	15
11	Half- and full-collision VT energy transfer in the He?Br2(B) system. *Chemical Physics Letters*, **1997**, 269, 448-454	2.5	7
10	Ar□2 interactions: The models based on the diatomics-in-molecule approach. *Journal of Chemical Physics*, **1996**, 104, 9913-9925	3.9	80
9	Decoupling approximations for quantum vibrational predissociation dynamics: The tests on the low-level golden rule approaches for some rare gas□Cl2, ICl complexes. *Journal of Computational Chemistry*, **1996**, 17, 919-930	3.5	12
8	Structure and interaction energies of the Ar□Cl2 complex. Application of first-order intermolecular potentials. *Chemical Physics Letters*, **1996**, 261, 591-596	2.5	14
7	Vibrational predissociation dynamics of the He79Br2 van der Waals molecule: A quantum mechanical study. *Journal of Chemical Physics*, **1996**, 105, 7454-7463	3.9	44
6	The vibrational predissociation lifetime of the He□N+2 (X, □= 1) complex. *Chemical Physics Letters*, **1994**, 220, 93-96	2.5	3
5	Interaction potentials and fragmentation dynamics of the Ne?Br2 complex in the ground and electronically excited states. *Journal of the Chemical Society, Faraday Transactions*, **1994**, 90, 3229-3236		20
4	Approximate phase-space transport theory for vibrational predissociation. *Journal of Chemical Physics*, **1993**, 98, 5486-5498	3.9	7
3	Approximate Quantal Calculations on the Predissociative Lifetimes of the Ne□Hal2(X,v) (Hal = Cl,Br,I) Van Der Waals Complexes. *Spectroscopy Letters*, **1992**, 25, 189-200	1.1	1
2	Approximate treatment of the phase-space bottlenecks for vibrational predissociation. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **1991**, 24, L545-L549	1.3	1
1	Fragment-localized analysis of the multiconfigurational wavefunctions. *Chemical Physics*, **1990**, 148, 309-314	2.3	2