JarosÅ‚aw Koperski

List of Publications by Year
in descending order

72	1,033	516710 16	501196 28
papers	citations	h-index	g-index

75	75	75	222
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Study of diatomic van der Waals complexes in supersonic beams. Physics Reports, 2002, 369, 177-326.	25.6	97
2	The Cd2 and Zn2 van der Waals dimers revisited. Correction for some molecular potential parameters. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 1999, 55, 2221-2229.	3.9	76
3	The 0+u(6 3P1)â†X0+g spectrum of Hg2 excited in a supersonic jet. Chemical Physics Letters, 1994, 219, 161-168.	2.6	72
4	Molecular beam spectroscopy of the and transitions in Hg₂. Canadian Journal of Physics, 1994, 72, 1070-1077.	1.1	45
5	TheG0u+(61P1)â€“X0G+Excitation and Fluorescence Spectra of Hg2Excited in a Supersonic Jet. Journal of Molecular Spectroscopy, 1997, 184, 300-308.	1.2	40
6	Interatomic potentials of cadmium-argon B1(3 Î£ +) and X0 + (1 Î£ +) states based on near-dissociation expansion and â€˜hotâ€™ bands observed in the B1â†X0 + excitation spectrum. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2000, 56, 1613-1626.	3.9	30
7	Spectroscopy of the A0+ and B1 states in HgAr and HgNe. Chemical Physics, 1994, 186, 401-407.	1.9	28
8	Improved spectroscopic characterisation of the ground. European Physical Journal D, 2000, 10, 363.	1.3	27
9	Excitation spectrum of the A0+(5â€‰3P1), B1(5â€‰3P1)â†X0+(5â€‰1S0) transitions in the CdHe van der Waals molecule: Spectroscopic characterization of the X0+, A0+, and B1 electronic energy states. Journal of Chemical Physics, 1998, 109, 459-465.	3.0	26
10	Structure of excitation and fluorescence spectra recorded at the10u+(51P1)â€“X10g+transition ofCd2. Physical Review A, 2003, 68, .	2.5	24
11	Short-Range Characterization of the MeAr (Me=Zn, Cd) Ground-State Potentials from Fluorescence Spectra. Journal of Molecular Spectroscopy, 2002, 212, 162-170.	1.2	23
12	Laser spectroscopy of CdKr molecules in ultraviolet region. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2002, 58, 2709-2724.	3.9	23
13	Spectroscopic characterization of the ZnNe van der Waals molecule in theX0+(41S0)andD1(41P1)energy states. Physical Review A, 2000, 62, .	2.5	21
14	Characterization of bound parts of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:mrow><mml:mtext>b</mml:mtext><mml:msup><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msup><mml:msubsup><mml:mrow><mml:mn>0</mml:mn></mml:mrow><mml:mrow><mml:mn>0</mml:mn></mml:mrow><mml:mrow><mml:mo>+</mml:mo></mml:mrow></mml:msubsup><mml:mo>→</mml:mo><mml:msup><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msup><mml:msubsup><mml:mrow><mml:mn>0</mml:mn></mml:mrow><mml:mrow><mml:mn>0</mml:mn></mml:mrow><mml:mrow><mml:mo>+</mml:mo></mml:mrow></mml:msubsup></mml:mrow></mml:math>		

#	Article	IF	Citations
19	Potential energy curve of the ground state of HgAr determined from fluorescence spectra. Chemical Physics, 1996, 211, 191-201.	1.9	15
20	Interatomic potential parameters of CdHe van der Waals complex in the A30+,B31 and X10+ states â€“ revisited. Chemical Physics Letters, 2001, 350, 367-371.	2.6	15
21	Laser excitation spectrum and spectroscopic potential parameters of Cd2 molecule in the 1u(53P2) energy state. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2002, 58, 927-932.	3.9	15
22	Spectroscopical characterization of CdNe van der Waals complex in the E1(3Î£+) Rydberg state. Chemical Physics Letters, 2002, 357, 119-125.	2.6	14
23	The structure of the lowest electronic Rydberg state of CdAr complex determined by laser double resonance method in a supersonic jet-expansion beam. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2003, 59, 2435-2448.	3.9	14
24	Electronic structure of the CdKr lowest Rydberg state determined from laser-excitation spectra using supersonic beam and double optical resonance methods. Physical Review A, 2004, 69, .	2.5	14
25	Rotational analysis of the (57,0) band of the tripletâ€“singlet transition in Hg2 produced in a free-jet expansion beam. Chemical Physics, 2008, 348, 103-112.	1.9	14
26	Excitation spectra of CdRg (Rg = He, Ne, Xe) complexes recorded at the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:mrow><mml:msup><mml:mrow><mml:mtext>D</mml:mtext></mml:mrow><mml:mrow><mml:mn>1</mml:m mathvariant="normal">Î£</mml:mi></mml:mrow><mml:mrow><mml:mn>0</mml:mn></mml:mrow></mml:mrow><mml:mo>+</mml:m Chemical Physics Letters, 2009, 471, 29-35.	2.6	13
27	Freeâ†bound and boundâ†bound profiles in excitation spectra of the B31â†X10+ transition in CdNg (Ng=noble) Tj ETQq1 1 0.784314 rg	1.9	13
28	Profiles of (Ï…â€²;Ï…â€³ = 0) bands recorded in excitation spectra using b30+u â†•X10g+ transitions in Cd2 and B31â€‰â†â€‰X10+ transitions in CdAr. Molecular Physics, 2014, 112, 2486-2494.	1.7	13
29	Rotational profiles of vibrational bands recorded at the B31(53P1) â†•X10+(51S0) transition in CdAr complex. Chemical Physics Letters, 2014, 591, 64-68.	2.6	13
30	Longâ€range potential of B1(3Î£+) state based on a nearâ€dissociation expansion of the mercuryâ€“argon molecules. Journal of Chemical Physics, 1996, 105, 4920-4922.	3.0	12
31	First Observations of Laser-Excited Hg3and Hg2RG Spectra in a Supersonic Expansion Beam. Journal of Molecular Spectroscopy, 1998, 187, 181-192.	1.2	12
32	Short-range repulsion in the D10+(1Î£+)-state potential of the CdRG (RG=Ar, Kr) molecules determined from a direct continuumâ†bound excitation detected at the D10+â†X10+(1Î£+) transition. Chemical Physics Letters, 2005, 416, 147-151.	2.6	12
33	Repulsive and bound parts of the interatomic potentials of the lowest singlet electronic energy states of the MeRg complexes (Me=Zn, Cd; Rg=He, Ne, Ar, Kr, Xe). Journal of Molecular Spectroscopy, 2009, 256, 128-134.	1.2	12
34	Structure of vibrational bands of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mrow><mml:mtext>E</mml:mtext></mml:mrow><mml:mrow><mml:mn>3</mml:m mathvariant="normal">Î£</mml:mi></mml:mrow><mml:mrow><mml:mo>+</mml:mo></mml:mrow></mml:msup><mml:mo		

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37	Short-range repulsion in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:mrow><mml:msup><mml:mrow><mml:mi>D</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow mathvariant="normal">Î£</mml:mi></mml:mrow><mml:mrow><mml:mn>0</mml:mn></mml:mrow><mml:mrow><mml:mo>+</mml:mo></mml:mrow> potential of the ZnRg (Rg = Ne, Ar, Kr) complexes determined from a dir. Chemical Physics Letters, 2008, 465, 25-29.	2.6	10
38	Interatomic potentials of metal dimers: probing agreement between experiment and advancedab initiocalculations for van der Waals dimer Cd₂. International Reviews in Physical Chemistry, 2017, 36, 541-620.	2.3	10
39	Potential energy curve of the XO+(1â^'+) ground state of HgAr determined from (II) â†' 1(â^') â†' fluorescence spectra (Chemical Physics 211 (1996) 191â€“201). Chemical Physics, 1997, 214, 431-432.	1.9	9
40	Determination of Interatomic Potentials for the X0+, A0+, and B1 States of HgKr from Fluorescence and Excitation Spectra. Journal of Molecular Spectroscopy, 2001, 207, 172-188.	1.2	9
41	Rotational structure of the <mml:math altimg="si33.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:sce="http://www.Chemical	2.6	9
42	The E 3 Î£ 1 + (6 3 S 1) â†•A 3 Î 0+ (5 3 P 1) transition in CdAr revisited: The spectrum and new analysis of the E 3 Î£ 1 + Rydberg state interatomic potential. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 196, 58-66.	3.9	9
43	Nuclear-spin intensity alternation and rotational-levels symmetry properties in isotopically-resolved excitation spectrum of Cd2. Chemical Physics Letters, 2004, 384, 317-319.	2.6	8
44	Evidence of a weak dipole transition moment between the and 31u(53P1) electronic energy states in Cd2. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2005, 61, 1835-1840.	3.9	8
45	Spectroscopy of the 11u(51P1) and singlet electronic states of cadmium dimer: Bond lengths and verification of ab initio potentials. Journal of Molecular Spectroscopy, 2007, 243, 134-141.	1.2	8
46	Potential energy curves for the B¹1_ustate and short-range part of the X¹0⁺_gstate of Cd₂determined from excitation and dispersed fluorescence spectra recorded using the B¹1_uâ†' X¹0⁺_gtransition. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 245101.	1.5	8
47	The E3Î£+(63S1)-state interatomic potential of CdAr in the long range region revisited: A new method for bond length adjustment. Chemical Physics Letters, 2015, 640, 82-86.	2.6	8
48	Potentials of the D10u+(61S0) and F31u(63P2) Electronic Rydberg States of Cd2from ab Initio Calculations and Laser-Induced Fluorescence Excitation Spectra. Journal of Physical Chemistry A, 2011, 115, 6851-6860.	2.5	7
49	Group-12 vdW dimers in free-jet supersonic beams: The legacy of Eugeniusz Czuchaj continues. European Physical Journal: Special Topics, 2007, 144, 107-114.	2.6	6
50	Spectroscopy of CdKr van der Waals complex using OODR process: New determination of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si113.svg"><mml:mrow><mml:msup><mml:mrow><mml:mi>E</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow><mml:mrow mathvariant="normal">Î£</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mo>+</mml:mo></mml:m		

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55	Interatomic potential parameters of CdHe van der Waals complex derived from excitation spectrum of the C11(51P1)â†X10+(51S0) vibrational transition. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2007, 67, 730-736.	3.9	4
56	LIF dispersed emission spectra and characterization of ZnRg (Rg = Ne, Ar, Kr) ground-state potentials. Chemical Physics Letters, 2009, 479, 189-194.	2.6	4
57	Rotational profiles in the excitation spectrum recorded for the B31(53P1) â¿¿ X10+(51S0) transition in CdNe van der Waals complex. Chemical Physics Letters, 2016, 644, 231-234.	2.6	4
58	Neural networks and determination of diatomic molecule interatomic potential of cadmium dimer. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 189, 502-509.	3.9	4
59	Determination of interatomic potentials for diatomic molecules from low resolution spectra. Journal of Molecular Spectroscopy, 2016, 330, 165-169.	1.2	2
60	High-temperature continuous molecular beam source for aggressive elements: An example of zinc. Review of Scientific Instruments, 2019, 90, 115109.	1.3	2
61	Genetic Algorithm for quick finding of diatomic molecule potential parameters. Molecular Simulation, 2020, 46, 1073-1083.	2.0	2
62	Rydberg states of ZnAr complex. Molecular Physics, 2022, 120, .	1.7	2
63	Absorption and fluorescence laser spectroscopy of CdKr molecule in ultraviolet region. AIP Conference Proceedings, 2001, , .	0.4	1
64	Exploration of the molecular ro-vibrational energy structure: on the perspective of Yb₂ and Cd₂ internal cooling, and ¹⁷¹Yb-version of Einsteinâ€“Podolskyâ€“Rosen experiment. Molecular Physics, 2018, 116, 3475-3486.	1.7	1
65	Deep neural network for fitting analytical potential energy curve of diatomic molecules from ro-vibrational spectra. Molecular Simulation, 0, , 1-9.	2.0	1
66	Rotational characterization of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si70.svg"><mml:mrow><mml:msup><mml:mrow><mml:mi>E</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></m mathvariant="normal">Î£</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:mrow><mml:mo>+</mml:m Rydberg state of CdNe van der Waals complex via selective J-excitation in OODR process. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 264, 120248.	3.9	1
67	Opticalâ€“optical double resonance process in free-jet supersonic expansion of van der Waals molecules: characteristics of the expansion, number of excited molecules and emitted photons. Molecular Physics, 0, , .	1.7	1
68	Procedure for Deconvolution of Time-Dependent Signals with Sinusoidal Shape. , 2008, , .		0
69	The ambiguity in determination of interatomic potential of diatomic molecule. Journal of Physics: Conference Series, 2017, 810, 012041.	0.4	0
70	Interatomic potentials of van der Waals dimers Hg2and Cd2: Probing discrepancies between theory and experiment. Journal of Physics: Conference Series, 2017, 810, 012018.	0.4	0
71	Ro-vibrational cooling of diatomic molecules Cd2 and Yb2: rotational energy structure included. Molecular Physics, 2020, 118, e1694712.	1.7	0
72	Observation of gerade Rydberg state of Cd2 van der Waals complex cooled in free-jet expansion beam and excited using optical-optical double resonance method. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 253, 119500.	3.9	0