

Sergey A Astashkevich

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6128548/publications.pdf>

Version: 2024-02-01

37
papers

235
citations

1307594

7
h-index

1058476

14
g-index

37
all docs

37
docs citations

37
times ranked

118
citing authors

#	ARTICLE	IF	CITATIONS
1	Radiative characteristics of $3p \ ^1\text{P}_1, \ ^1\text{P}_1; 3d \ ^1\text{D}_2, \ ^1\text{D}_2$ states of H ₂ and determination of gas temperature of low pressure hydrogen containing plasmas. Journal of Quantitative Spectroscopy and Radiative Transfer, 1996, 56, 725-751.	2.3	93
2	Lifetimes of the electronic-vibrational-rotational states of hydrogen molecule (Review). Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2002, 92, 818-850.	0.6	25
3	Lifetimes of Vibro-Rotational Levels in Excited Electronic States of Diatomic Hydrogen Isotopologues. Journal of Physical and Chemical Reference Data, 2015, 44, 023105.	4.2	12
4	Creation of resonance photoplasma by concentrated solar/gas lamp irradiation. Self-consistent modeling. Physics of Plasmas, 2019, 26, 103509.	1.9	10
5	2-D Simulation of Two-Chamber Photoplasma for Conversion of Light Radiation to Electrical Energy. IEEE Transactions on Plasma Science, 2020, 48, 394-401.	1.3	9
6	Optimization of Photoelectric Converter Based on a Two-Chamber Na-Ar Gas Photoplasma. IEEE Transactions on Plasma Science, 2020, 48, 402-409.	1.3	7
7	2D simulation of solar/lamp two-chamber photoelectric converter with different sodium-noble gas mixtures. Plasma Sources Science and Technology, 2020, 29, 115005.	3.1	7
8	Comparative analysis of perturbations of the energy, radiative, and magnetic characteristics of electronic-vibrational-rotational states of the hydrogen molecule. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2006, 92, 107-110.	0.6	10
9	Perturbations of Radiative Lifetimes of Rovibrational Levels of the $J=1$ g and $J=1$ g States of H ₂ . Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2000, 89, 13.	0.6	5
10	Semiempirical investigation of perturbations of the g factors of electronic-vibrational-rotational levels of hydrogen: III. The $r \ ^1\text{g}$ and $s \ ^1\text{g}$ states of the H ₂ and D ₂ molecules. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2006, 101, 508-515.	0.6	4
11	On the Validity of Two-Chamber Configuration for the Generation of Electromotive Force in Photoplasma. IEEE Transactions on Plasma Science, 2021, 49, 990-996.	1.3	4
12	Influence of Vortex Electron Currents on Transport Processes in 2-D Photoplasma of Sodium-Noble Gas Mixtures. IEEE Transactions on Plasma Science, 2021, 49, 1009-1016.	1.3	4
13	Perturbations of radiative lifetimes of rovibrational levels of the $J=1$ g - and $J=1$ g - states of H ₂ . Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2000, 89, 13-22.	0.6	3
14	Perturbation of the radiative lifetimes of rovibronic levels of the n l complex of terms of a diatomic molecule. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2002, 93, 501-508.	0.6	3
15	Spectroscopic determination of Fisher information on vibrational states of diatomic molecules using the example of the $X \ ^1\text{g}$ + state of a Li ₂ molecule. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2006, 92, 107-110.	0.6	3
16	Using two-chamber photoplasma for creating photovoltaic converter. Journal of Physics: Conference Series, 2017, 927, 012004.	0.4	3
17	Evaluation of the photoionization probability of H ₂ ⁺ by the trajectory semiclassical method. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1881-1884.	2.1	3
18	Comments on "Statistical complexity and Fisher-Shannon information measure of H ₂ ". Phys. Lett. A 372 (13) (2008) 2271-2273]. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2554-2556.	2.1	3

#	ARTICLE	IF	CITATIONS
19	Electron vortexes in two-dimensional steady photoplasma. Chinese Journal of Physics, 2022, 75, 69-75.	3.9	3
20	Influence of collisional broadening on resonance photoplasma parameters in a sodium-argon mixture. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 288, 108256.	2.3	3
21	Comparison of semiempirical and ab initio absolute probabilities of rovibronic transitions for the $I\ 1\ 1\ g\ \hat{a}^{\sim}, J\ 1\ 1\ g\ \hat{a}^{\sim}\ \hat{a}^{\sim}\ C\ 1\ 1\ u\ \hat{A}_{\pm}$ system of bands of the H2 molecule. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2000, 88, 835-843.	0.6	2
22	Relative probabilities of spontaneous transitions in $v\ \hat{\epsilon}^3$ progressions of the $G\ 1\ 1\ g\ +, v\ \hat{\epsilon}^2\ \hat{a}^{\sim}\ B\ 1\ 1\ g\ u +, v\ \hat{\epsilon}^3$ bands of the H2 molecule. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2000, 88, 835-843.	0.6	2
23	Probabilities of rovibronic transitions in the $I\ 1\ 1\ g\ \hat{a}^{\sim}, J\ 1\ 1\ g\ \hat{a}^{\sim}\ \hat{a}^{\sim}\ C\ 1\ 1\ u\ \hat{A}_{\pm}$ systems of bands of the deuterium molecule. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2001, 90, 212-221.	0.6	2
24	A semiempirical analysis of perturbations in the triplet 3s, 3d complex of molecular hydrogen: The radiative lifetimes for rovibronic levels of the $h\ 3\ 1\ g\ +, g\ 3\ 1\ g\ +, i\ 3\ 1\ g\ +, j\ 3\ 1\ g\ +$ states of H2. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2002, 93, 380-388.	0.6	2
25	On the inconsistency of spectroscopic data on the $(3d\ \hat{i})\ i\ 3\ 1\ g\ \hat{a}^{\sim}$ and $(3d\ \hat{j})\ j\ 3\ 1\ g\ \hat{a}^{\sim}$ states of the hydrogen molecule and the problems of semiempirical and ab initio calculations. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2004, 97, 16-29.	0.6	2
26	Semiempirical study of perturbations of the Landé g factors of electronic-vibrational-rotational levels of hydrogen: IV. The $I\ 1\ 1\ g\ \hat{a}^{\sim}, R\ 1\ 1\ g\ \hat{a}^{\sim}, J\ 1\ 1\ g\ \hat{a}^{\sim},$ and $S\ 1\ 1\ g\ \hat{a}^{\sim}$ states of the H2 and D2 molecules. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2007, 102, 175-185.	0.6	2
27	Observation of perturbations in the rovibronic transition probabilities for the $(4d)\ r\ 3\ 1\ g\ \hat{a}^{\sim}, (4d)\ s\ 3\ 1\ g\ \hat{a}^{\sim}\ \hat{a}^{\sim}\ (2p)\ c\ 3\ 1\ u\ \hat{A}_{\pm}$ band systems of the H2 molecule. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2007, 102, 175-185.	0.6	2
28	The radiative characteristics of hydrogen rovibronic states: II. The probabilities of the $i\ 3\ 1\ g\ \hat{a}^{\sim}, j\ 3\ 1\ g\ \hat{a}^{\sim}\ \hat{a}^{\sim}\ b\ 3\ 1\ g\ u +, c\ 3\ 1\ u\ \hat{A}_{\pm}$ spontaneous transitions in H2, HD, and D2. Russian Journal of Physical Chemistry B, 2007, 1, 1-14.	1.3	2
29	The radiative characteristics of the rovibronic states of the hydrogen molecule: III. The probabilities of the $h\ 3\ 1\ g\ +, g\ 3\ 1\ g\ +, i\ 3\ 1\ g\ +, j\ 3\ 1\ g\ +\ \hat{a}^{\sim}\ c\ 3\ 1\ u\ \hat{A}_{\pm}$ spontaneous transitions in the H2 molecule. Russian Journal of Physical Chemistry B, 2007, 1, 197-207.	1.3	2
30	A systematic semiempirical study of information inequalities for the vibrational levels of a diatomic molecule for the example of the ground electronic state of 7Li2. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 108, 107-114.	0.6	0
31	Comparison of information-theoretic products and inequalities for the lowest bound and unbound electronic states of H_2 . Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 108, 107-114.	0.6	0
32	Semiempirical study of perturbations of the Landé g factors of the electronic-vibrational-rotational levels of hydrogen: I. Theory. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2007, 102, 175-185.	0.6	2
33	Semiempirical study of perturbations of the Landé g factors of electronic-vibrational-rotational levels of hydrogen: II. $i\ 3\ 1\ g\ \hat{a}^{\sim}$ and $j\ 3\ 1\ g\ \hat{a}^{\sim}$ states of the H2, HD, and D2 molecules. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2004, 96, 35-46.	0.6	1
34	Studies of H2 photoionization by a strong ultrashort x-ray pulse on base of a trajectory method. Laser Physics, 2020, 30, 075301.	1.2	1
35	Electronic branching ratios of spontaneous emission for transitions between states of the 3d and 2p singlet complexes of terms of H2. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2010, 108, 107-114.	0.6	0
36	On an inconsistency between experimental and non-empirical data on the lifetimes of electronic-vibrational-rotational states of the H2, HD, and D2 molecules. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2015, 119, 599-602.	0.6	0

#	ARTICLE	IF	CITATIONS
37	Photoionization of hydrogen molecular ion by ultrashort photo-pulse in a wide range of field magnitudes. Journal of Physics: Conference Series, 2017, 927, 012081.	0.4	0