

ERRATA

Erratum: Absolute optical oscillator strengths for the electronic excitation of atoms at high resolution. III. The photoabsorption of argon, krypton, and xenon [Phys. Rev. A 46, 149 (1992)]

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Some values in Tables V, VII, and IX were incorrectly positioned. The tables are reproduced below in their entireties.

TABLE V. Theoretical and experimental determinations of the absolute optical oscillator strengths for discrete transitions of argon in the energy regions (a) 13.80–14.85 eV and (b) 14.85–15.30 eV. Estimated uncertainties in the experimental measurements are shown in parentheses.

(a) 13.80–14.85 eV							
Oscillator strength from $3s^23p^6 \rightarrow 3s^23p^5m$ where m is							
	$(^2P_{3/2})3d^a$ (13.864 eV) ^b	$(^2P_{3/2})5s$ (14.090 eV)	$(^2P_{3/2})3d$ (14.153 eV)	$(^2P_{1/2})5s'$ (14.255 eV)	$(^2P_{1/2})3d'$ (14.304 eV)	$(^2P_{3/2})4d$ (14.711 eV)	$(^2P_{3/2})6s$ (14.848 eV)
Theory							
Lee [42]	0.0016	0.045	0.045	0.039	0.128	0.0026	0.023
Lee and Lu [41]	0.0011	0.034	0.053	0.025	0.11	0.0031	0.014
Experiment							
Present work	0.0013	0.0264	0.0914	0.0126	0.106	0.0019	0.0144
[HR dipole (e, e)]	(0.0001)	(0.0026)	(0.0091)	(0.0013)	(0.011)	(0.0002)	(0.0014)
Westerveld, Mulder, and Van Eck [53]	0.000 89	0.025	0.079	0.0106	0.086		
(Absolute self-absorption)	(0.000 07)	(0.002)	(0.006)	(0.0008)	(0.007)		
Geiger [83]	< 0.0025	0.032	0.108	0.0108	0.097		
(Electron impact)							
Natali, Kuyatt, and Mielczarek [87]	0.0010	0.028	0.092	0.0124	0.110	0.004	0.0094
(Electron impact)							
Wiese, Smith, and Miles [97] ^c		0.0268	0.093	0.0119	0.0106		
(Lifetime data from Ref. [64])							
Lawrence [64]		0.028	0.093	0.013	0.107		
(Lifetime delayed coincidence)		(0.002)	(0.006)	(0.003)	(0.015)		
(b) 14.85–15.30 eV							
Oscillator strength from $3s^23p^6 \rightarrow 3s^23p^5m$ where m is							Total
	$(^2P_{3/2})4d^a$ (14.859 eV) ^b	$(^2P_{1/2})4d'$ (15.004 eV)	$(^2P_{1/2})6s'$ (15.022 eV)	$(^2P_{3/2})5d$ (15.118 eV)	$(^2P_{3/2})7s$ (15.186 eV)	$(^2P_{3/2})5d$ (15.190 eV)	to ionization
Theory							
Lee [42]	0.036						0.82
Lee and Lu [41]	0.039	0.032	0.013				
Experiment							
Present work [HR dipole (e, e)]	0.0484	0.0209	0.0221	0.0041	0.0426		0.859
	(0.0048)	(0.0021)	(0.0022)	(0.0004)	0.0063		(0.043)
Natali, Kuyatt, and Mielczarek [87]	0.048	0.015	0.0224	0.0032	0.0139	0.0234	0.827
(Electron impact)							

^a nd and \underline{nd} refer to the $nd[1/2]$ and $nd[3/2]$ states, respectively, which converge to the same $^2P_{3/2}$ limit.

^bThe transition energies were obtained from Ref. [95].

^cValues obtained by reanalyzing the lifetime data of Lawrence [64].

TABLE VII. Theoretical and experimental determinations of the absolute optical oscillator strengths for discrete transitions of krypton in the energy regions (a) 11.90–13.05 and (b) 13.05–13.50 eV. Estimated uncertainties in the experimental measurements are shown in parentheses.

(a) 11.90–13.05 eV						
Oscillator strength from $4s^24p^6 \rightarrow 4s^24p^5m$ where m is						
	$(^2P_{3/2})4d^a$ (12.037 eV) ^b	$(^2P_{3/2})4\bar{d}$ (12.355 eV)	$(^2P_{3/2})6s$ (12.385 eV)	$(^2P_{3/2})5d$ (12.870 eV)	$(^2P_{1/2})4d'$ (13.005 eV)	$(^2P_{1/2})6s'$ (13.037 eV)
	Theory					
Greiger [82]	0.0144	0.0973	0.108	0.0114	0.0438	0.0065
	Experiment					
Present work [HR dipole (e, e)]	0.0053 (0.0003)	0.0824 (0.0082)	0.154 (0.015)	0.0140 (0.0014)	0.0435 (0.0044)	0.0105 (0.0011)
Geiger [82] (Electron impact)	0.0055	0.0649	0.142	0.014	0.0439	0.015
Natali, Kuyatt, Mielczarek and Mielczarek [87] (Electron impact)	0.0044	0.0817	0.152	0.0138	0.0420	0.0056
(b) 13.05–13.50 eV						
Oscillator strength from $4s^24p^6 \rightarrow 4s^24p^5m$ where m is						Total
	$(^2P_{3/2})5\bar{d}^a$ (13.099 eV) ^b	$(^2P_{3/2})7s$ (13.114 eV)	$(^2P_{3/2})6d$ (13.350 eV)	$(^2P_{3/2})6\bar{d}$ (13.423 eV)	$(^2P_{3/2})8s$ (13.437 eV)	to ionization
	Theory					
Geiger [82]	0.0960	0.0436	0.0025	0.0307	0.0163	
	Experiment					
Present work [HR dipole (e, e)]	0.0610 (0.0061)	0.113 (0.011)	0.0015 (0.0002)	0.0439 (0.0044)	0.0203 (0.0020)	1.126 (0.056)
Geiger [82] (Electron impact)	0.187		0.0042	0.054		
Natali, Kuyatt, and Mielczarek [87] (Electron impact)	0.119	0.048	0.0024	0.0295	0.0290	1.10

^a nd and $n\bar{d}$ refer to the $nd[1/2]$ and $nd[3/2]$ states, respectively, which converge to the same $^2P_{3/2}$ limit.

^bThe transition energies were obtained from Ref. [95].

TABLE IX. Theoretical and experimental determinations of the absolute optical oscillator strengths for discrete transitions of xenon in the energy regions (a) 9.80–11.45 eV and (b) 11.45–11.80 eV. Estimated uncertainties in the experimental measurements are shown in parentheses.

(a) 9.80–11.45 eV							
Oscillator strength from $5s^25p^6 \rightarrow 5s^25p^5m$ where m is							
	$(P_{3/2})5d^a$ (9.917 eV) ^b	$(^2P_{3/2})5\bar{d}$ (10.401 eV)	$(^2P_{3/2})7s$ (10.593 eV)	$(^2P_{3/2})6d$ (10.979 eV)	$(^2P_{1/2})6\bar{d}$ (11.163 eV)	$(^2P_{3/2})8s$ (11.274 eV)	$(^2P_{3/2})7d$ (11.423 eV)
	Theory						
Geiger [82]	0.0237	0.550	0.0769	0.0025	0.0940	0.0126	0.0190
	Experiment						
Present work [HR dipole (e, e)]	0.0105 (0.0005)	0.379 (0.019)	0.0859 (0.0043)	< 0.001	0.0835 (0.0084)	0.0222 (0.0022)	0.0227 (0.0023)
Ferrel, Payne, and Garrett [75] (Phase matching)		0.370 (0.07)	0.088 (0.01)				
Kramer, Chen, and Payne [74] (Phase matching)			0.098				
Geiger [82] (Electron impact)	0.0095	0.395	0.0968	0.0025	0.0862	0.0236	0.0217
Delage and Carette [81] (Electron impact)	0.019	0.395 ^c	0.110		0.123	0.032	0.027
Natali, Kuyatt, and Mielczarek [87] (Electron impact)	0.012	0.381	0.09	0.002	0.082	0.021	0.021

TABLE IX. (Continued).

	(b) 11.45–11.80 eV Oscillator strength from $5s^25p^6 \rightarrow 5s^25p^5m$ where m is						Total to ionization
	$(^2P_{3/2})7\bar{d}^a$ (11.495 eV) ^b	$(^2P_{3/2})9s$ (11.583 eV)	$(^2P_{1/2})5d'$ (11.607 eV)	$(^2P_{3/2})8d$ (11.683 eV)	$(^2P_{3/2})8\bar{d}$ (11.740 eV)	$(^2P_{3/2})10s$ (11.752 eV)	
Geiger [82]	0.0024	Theory 0.0009 0.206		0.0155	0.123	0.0169	
Present work [HR dipole (e, e)]	<0.001	Experiment <0.001 0.191 (0.019)		0.0088 (0.0009)	0.0967 (0.0097)	0.0288 (0.0029)	1.606 (0.080)
Geiger [82] (Electron impact)	0.004	0.006	0.205	0.0096	0.123	0.0204	1.640 ^d
Delgace and Carette [81] (Electron impact)		0.251			0.171		
Natali, Kuyatt, and Garrett [87] (Electron impact)	0.0003	0.001	0.186	0.006	0.109	0.015	

^a nd and $n\bar{d}$ refer to the $nd[1/2]$ and $nd[3/2]$ states, respectively, which converge to the same $^2P_{3/2}$ limit.

^bThe transition energies were obtained from Ref. [95].

^cThis value was normalized to the experimental value of Geiger [82].

^dThis value is quoted in Ref. [88].

Erratum: Multiphoton ionization in superintense, high-frequency laser fields.

I. General developments [Phys. Rev. A 44, 2141 (1991)]

Erratum: Multiphoton ionization in superintense, high-frequency laser fields.

II. Stabilization of atomic hydrogen in linearly polarized fields [Phys. Rev. A 44, 2152 (1991)].

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The author of the above-mentioned papers would like to correct some technical inaccuracies with respect to affiliation and acknowledgments.

The affiliation should have been “FOM–Institute for Atomic and Molecular Physics, Kruislaan 407, 1098 SJ, Amsterdam, the Netherlands.” In addition, in the Acknowledgment section the following line should be added: “The author’s present address is the University of Southern California, Physics Department, University Park, Los Angeles, CA 90089-0484.” Also the line “The work presented here was carried out at the FOM–Institute for Atomic and Molecular Physics . . . ” should be modified to “The work presented here is based on the author’s thesis work, which was carried out at the FOM–Institute for Atomic and Molecular Physics. . . .”

Finally, the line “It was part of the research program . . . Advancement of Research)” should be appended by “and was partly supported by the European Community Science Stimulation Program under Contract No. SC1 000 103.”

The author sincerely apologizes to the FOM–Institute AMOLF in Amsterdam for any confusion caused.