MOLAT

http://molat.obspm.fr/

sous la rubrique « Bases de Données Atomiques et Moléculaires »

(Projet Interdépartemental LERMA-LUTH impliquant LESIA et GEPI)

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Données atomiques et moléculaires élaborées

à l'Observatoire de Paris-Meudon

Objectifs

* Rendre accessibles sur un serveur sécurisé des données atomiques et moléculaires originales élaborées par des équipes de l'Observatoire : spectroscopie et collisions

* Complémentarité avec les grandes bases internationales : ambitions plus limitées mais souplesse dans la mise à jour des données par les auteurs

Présentation inhomogène :

* Différents auteurs responsables de leurs données

* Données théoriques ou expérimentales, compilations, bibliographies

Motivations : Observations dans l'UV HST, FUSE, SOHO, CASSINI, plasmas de laboratoire l'Observatoire de Paris

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- Other DataBases of Interest

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l'Observatoire de Paris

MOLAT
Atomic and Molecular Data

Contributing Paris Observatory laboratories :

GEPI *Galaxies, Etoiles, Physique et Instrumentation*
LERMA *Laboratoire d'Etude du Rayonnement et de la matière en Astrophysique*
LESIA *Laboratoire d'Études Spatiales et d'Instrumentation en Astrophysique*
LUTH *Laboratoire Univers et Théories*

Supported by the CNRS programs :

PCMI *Physique et Chimie du Milieu Interstellaire*
PNPS *Programme National de Physique Stellaire*
PNST *Programme National Soleil–Terre*

VUV Spectra of Atomic Ions

Transition metal ions

- **Mn IV**
- **Fe V**
- **Ta III**
- **Os IV**
- **Os VI**
- **Au III**
- **Au IV**

Pd-like ions

- **View**

Rare earth ions

- **Yb IV**
- **Tm IV**

Last update : 09/08/2007

TABLE2/A'5.TXT

a' 3 S- - X1S+ (5-0)

Line	J"	l(Å) calc	s(cm-1) calc.	s(cm-1) obs.	o-c	f	cross-section cm2Å
F2							
R	0	1634.242	61190.44		--	1.26E-07	2.99E-21
R	1	1634.212	61191.58	61191.29*	-0.29	6.32E-08	1.49E-21
R	2	1634.217	61191.37	61191.29*	-0.08	5.06E-08	1.19E-21
R	3	1634.259	61189.81	61189.53	-0.28	4.51E-08	1.07E-21
R	4	1634.337	61186.9	61186.58	-0.32	4.21E-08	9.96E-22
R	5	1634.451	61182.64	61182.37	-0.27	3.99E-08	9.44E-22
R	6	1634.601	61177.02	61176.76	-0.26	3.82E-08	9.04E-22
R	7	1634.787	61170.05	61169.80	-0.25	2.55E-08	6.05E-22
R	8	1635.009	61161.73	61161.51	-0.22	2.61E-08	6.18E-22
R	9	1635.268	61152.05	61151.86	-0.19	2.65E-08	6.29E-22
R	10	1635.563	61141.03	61140.82	-0.21	2.65E-08	6.28E-22
R	11	1635.894	61128.65	61128.50	-0.15	2.68E-08	6.35E-22
R	12	1636.262	61114.91	61114.80	-0.11	2.70E-08	6.42E-22
R	13	1636.666	61099.83	61099.72	-0.11	2.72E-08	6.48E-22
R	14	1637.106	61083.39	61083.27	-0.12	2.74E-08	6.53E-22
R	15	1637.583	61065.59	61065.48	-0.11	2.76E-08	6.56E-22
R	16	1638.097	61046.44	61046.42	-0.02	2.76E-08	6.57E-22
R	17	1638.647	61025.94	61025.96	0.02	2.77E-08	6.61E-22
R	18	1639.235	61004.08	61004.10	0.02	2.73E-08	6.53E-22
R	19	1639.859	60980.87	60980.96	0.09	2.74E-08	6.55E-22
R	20	1640.52	60956.3	60956.41	0.11	2.73E-08	6.53E-22
R	21	1641.217	60930.38	60939.54	0.16	2.71E-08	6.49E-22
R	22	1641.953	60903.1	60903.32	0.22	2.70E-08	6.46E-22
R	23	1642.725	60874.46	60874.73	0.27	2.68E-08	6.43E-22

fichiers-TmIV_160307.txt

Classified lines of Tm IV.

Columns:
- (1) measured wavelength in Angstrom (air wavelength above 2000)
- (2) intensity (visual estimate of plate blackening, scale 0-999)
  if Bl and no wavelength given, the transition is predicted to be weaker than for the classification given above
  if Dcl and no wavelength given, both transitions contribute similarly to the observed line
- (3) vacuum wavenumber (in cm-1)
- (4) difference between observed wavenumber and Ritz calculated wavenumber derived from the levels of columns (6) and (8)
- (5) difference between experimental and Ritz calculated wavelengths
- (6) even parity level Ee
- (7) Je quantum number
- (8) odd parity level Eo
- (9) Jo quantum number

---

(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)
748.928	3	133524.22	-0.260	0.002	000 1335	0.00	6.0	133524.48	5.0
764.235	1	130849.76	0.000	0.000	821 1390	8216.73	5.0	139066.49	6.0
769.046	60	130031.18	-0.150	0.001	821 1382	8216.73	5.0	138248.06	4.0
777.476	150	128621.37	0.390	-0.002	821 1368	8216.73	5.0	136837.71	4.0
781.617	20	127939.82	0.490	-0.003	000 1279	0.00	6.0	127939.33	6.0
785.165	100	127361.77	0.610	-0.004	821 1355	8216.73	5.0	135577.89	5.0
786.244	300	127186.95	0.000	0.000	1254 1397	12547.23	4.0	139734.18	3.0
787.460	150	126990.63	0.080	-0.001	000 1269	0.00	6.0	126990.55	5.0
788.967	10	126748.03	0.110	-0.001	563 1323	5634.02	4.0	132381.94	3.0
790.029	80	126577.61	0.390	-0.002	563 1322	5634.02	4.0	132211.24	4.0
792.742	30	126144.37	0.250	-0.002	000 1261	0.00	6.0	126144.12	6.0
793.374	25	126043.98	0.220	-0.001	000 1260	0.00	6.0	126043.76	7.0
795.536	80	125701.35	0.520	-0.003	1254 1382	12547.23	4.0	138248.06	4.0
797.929	2	125324.38	0.610	-0.004	1440 1397	14410.41	3.0	139734.18	3.0
798.032	60	125308.20	0.450	-0.003	821 1335	8216.73	5.0	133524.48	5.0
798.705	20	125202.65	0.580	-0.004	563 1308	5634.02	4.0	130836.09	5.0
799.367	30	125099.05	0.350	-0.002	563 1307	5634.02	4.0	130732.72	3.0
804.050	250	124370.41	0.320	-0.002	000 1243	0.00	6.0	124370.09	6.0
804.566	5	124290.64	0.160	-0.001	1254 1368	12547.23	4.0	136837.71	4.0

9333Table5.txt

Table V. Spectrum of Eu III.

Lambda(Å)	guA(s-1)	log(glf)	CF	Lower level E (cm-1)		g	Name	J	Upper level E (cm-1)		g	Name	J
2001.084	2.185E+06	-2.879	-0.220	0.00	(o)	1.997	4f7 8S	3.5	49956.73	(e)	1.491	4f65d(7F)6D	4.5
2001.859	2.434E+07	-1.834	-0.040	38229.07	(e)	1.790	4f65d(7F)8D	3.5	88166.46	(o)	1.524	4f66p(7F)6D	4.5
2002.260	3.555E+06	-2.669	-0.010	37017.43	(e)	1.993	4f65d(7F)8D	2.5	86944.83	(o)	1.518	4f66p(7F)6D	3.5
2002.526	1.667E+06	-2.999	0.510	33856.22	(e)	-0.377	4f65d(7F)8H	1.5	83776.98	(o)	1.871	4f66p(7F)8D	2.5
2002.713	3.288E+05	-3.703	-0.010	37017.43	(e)	1.993	4f65d(7F)8D	2.5	86933.53	(o)	1.108	4f66p(7F)6F	1.5
2003.662	1.656E+07	-2.002	-0.070	38067.33	(e)	1.351	4f65d(7F)8H	6.5	87959.80	(o)	1.455	4f66p(7F)6G	5.5
2003.808	4.175E+06	-2.601	-0.030	39289.69	(e)	1.385	4f65d(7F)8H	7.5	89178.53	(o)	1.468	4f66p(7F)8F	6.5
2006.193	6.545E+07	-1.403	-0.270	35108.86	(e)	1.050	4f65d(7F)8H	3.5	84938.40	(o)	1.135	4f66p(7F)6G	2.5
2007.471	4.139E+07	-1.602	-0.140	36962.29	(e)	1.298	4f65d(7F)8H	5.5	86760.09	(o)	1.413	4f66p(7F)6G	4.5
2010.088	7.369E+07	-1.350	-0.230	35972.13	(e)	1.211	4f65d(7F)8H	4.5	85705.11	(o)	1.347	4f66p(7F)6G	3.5
2013.740	1.602E+07	-2.012	0.830	38067.33	(e)	1.351	4f65d(7F)8H	6.5	87710.15	(o)	1.463	4f66p(7F)8G	7.5
2013.992	6.627E+06	-2.395	0.070	40518.43	(e)	1.509	4f65d(7F)8F	4.5	90155.04	(o)	1.461	4f66p(7F)6F	5.5
2018.258	7.689E+07	-1.328	0.650	35108.86	(e)	1.050	4f65d(7F)8H	3.5	84640.55	(o)	1.587	4f66p(7F)8F	3.5
2018.419	1.229E+06	-3.123	0.030	39225.71	(e)	1.686	4f65d(7F)8D	4.5	88753.45	(o)	1.416	4f66p(7F)6F	3.5
2019.232	1.776E+08	-0.964	0.640	35972.13	(e)	1.211	4f65d(7F)8H	4.5	85479.93	(o)	1.487	4f66p(7F)8F	4.5
2019.304	5.510E+06	-2.471	0.080	40133.12	(e)	1.626	4f65d(7F)8D	5.5	89639.17	(o)	1.453	4f66p(7F)6F	4.5
2024.354	1.872E+07	-1.939	0.700	34394.41	(e)	0.693	4f65d(7F)8H	2.5	83776.98	(o)	1.871	4f66p(7F)8D	2.5
2026.932	2.801E+08	-0.763	0.690	36962.29	(e)	1.298	4f65d(7F)8H	5.5	86282.06	(o)	1.460	4f66p(7F)8G	5.5
2027.291	4.701E+06	-2.536	-0.040	35627.36	(e)	2.575	4f65d(7F)8D	1.5	84938.40	(o)	1.135	4f66p(7F)6G	2.5
2028.051	4.081E+05	-3.597	-0.150	0.00	(o)	1.997	4f7 8S	3.5	49292.56	(e)	1.475	4f65d(7F)6D	3.5
2033.797	1.919E+06	-2.924	0.790	33856.22	(e)	-0.377	4f65d(7F)8H	1.5	83009.54	(o)	2.640	4f66p(7F)8D	1.5
2035.146	1.157E+05	-4.144	0.000	40518.43	(e)	1.509	4f65d(7F)8F	4.5	89639.17	(o)	1.453	4f66p(7F)6F	4.5
2035.318	2.265E+06	-2.852	0.010	39636.88	(e)	1.492	4f65d(7F)8G	2.5	88753.45	(o)	1.416	4f66p(7F)6F	3.5
2038.272	3.609E+08	-0.647	0.540	40133.12	(e)	1.626	4f65d(7F)8D	5.5	89178.53	(o)	1.468	4f66p(7F)8F	6.5
2040.348	8.827E+06	-2.258	-0.140	41159.52	(e)	1.470	4f65d(7F)8G	4.5	90155.04	(o)	1.461	4f66p(7F)6F	5.5
2040.811	2.263E+07	-1.850	0.140	39769.05	(e)	2.081	4f65d(7F)8P	2.5	88753.45	(o)	1.416	4f66p(7F)6F	3.5
2041.244	3.690E+08	-0.638	0.790	38067.33	(e)	1.351	4f65d(7F)8H	6.5	87041.33	(o)	1.458	4f66p(7F)8G	6.5
2042.631	6.279E+06	-2.404	-0.010	39225.71	(e)	1.686	4f65d(7F)8D	4.5	88166.46	(o)	1.524	4f66p(7F)6D	4.5
2042.841	1.100E+05	-4.161	0.000	35627.36	(e)	2.575	4f65d(7F)8D	1.5	84563.08	(o)	3.448	4f66p(7F)8F	0.5
2043.880	8.295E+05	-3.283	0.000	37017.43	(e)	1.993	4f65d(7F)8D	2.5	85928.29	(o)	1.495	4f66p(7F)6D	2.5
2045.027	2.530E+05	-3.800	0.000	38050.11	(e)	2.639	4f65d(7F)8F	0.5	86933.53	(o)	1.108	4f66p(7F)6F	1.5
2045.046	1.143E+06	-3.143	0.010	35627.36	(e)	2.575	4f65d(7F)8D	1.5	84510.34	(o)	0.538	4f66p(7F)6G	1.5
2048.246	9.437E+05	-3.227	0.010	39014.36	(e)	1.333	4f65d(7F)8G	1.5	87820.98	(o)	1.338	4f66p(7F)6F	2.5
2049.844	5.836E+07	-1.435	0.230	40870.60	(e)	1.883	4f65d(7F)8P	3.5	89639.17	(o)	1.453	4f66p(7F)6F	4.5
2051.294	6.660E+07	-1.375	0.090	39225.71	(e)	1.686	4f65d(7F)8D	4.5	87959.80	(o)	1.455	4f66p(7F)6G	5.5
2052.066	7.298E+05	-3.336	0.000	38229.07	(e)	1.790	4f65d(7F)8D	3.5	86944.83	(o)	1.518	4f66p(7F)6D	3.5
2053.250	1.585E+07	-1.998	-0.050	37017.43	(e)	1.993	4f65d(7F)8D	2.5	85705.11	(o)	1.347	4f66p(7F)6G	3.5

http://physics.nist.gov – NIST ASD Output: Lines

ASD | Data: Lines, Levels | Information: List of Spectra, Ground States & Ionization Energies, Bibliography, Help

NIST National Institute of Standards and Technology
Physics Laboratory

NIST Atomic Spectra Database Lines Data

Example of how to reference these results:
Ralchenko, Yu., Kramida, A.E., Reader, J., and NIST ASD Team (2008). *NIST Atomic Spectra Database* (version 3.1.4), [Online]. Available: http://physics.nist.gov/asd3 [2008, March 13]. National Institute of Standards and Technology, Gaithersburg, MD.

Query NIST Bibliographic Databases for **Eu III** (new window):	
Wavelengths	Transition Probabilities

Eu III: 229 Lines of Data Found

Wavelength in: vacuum below 2000 Å, air between 2000 and 20000 Å, vacuum above 20000 Å

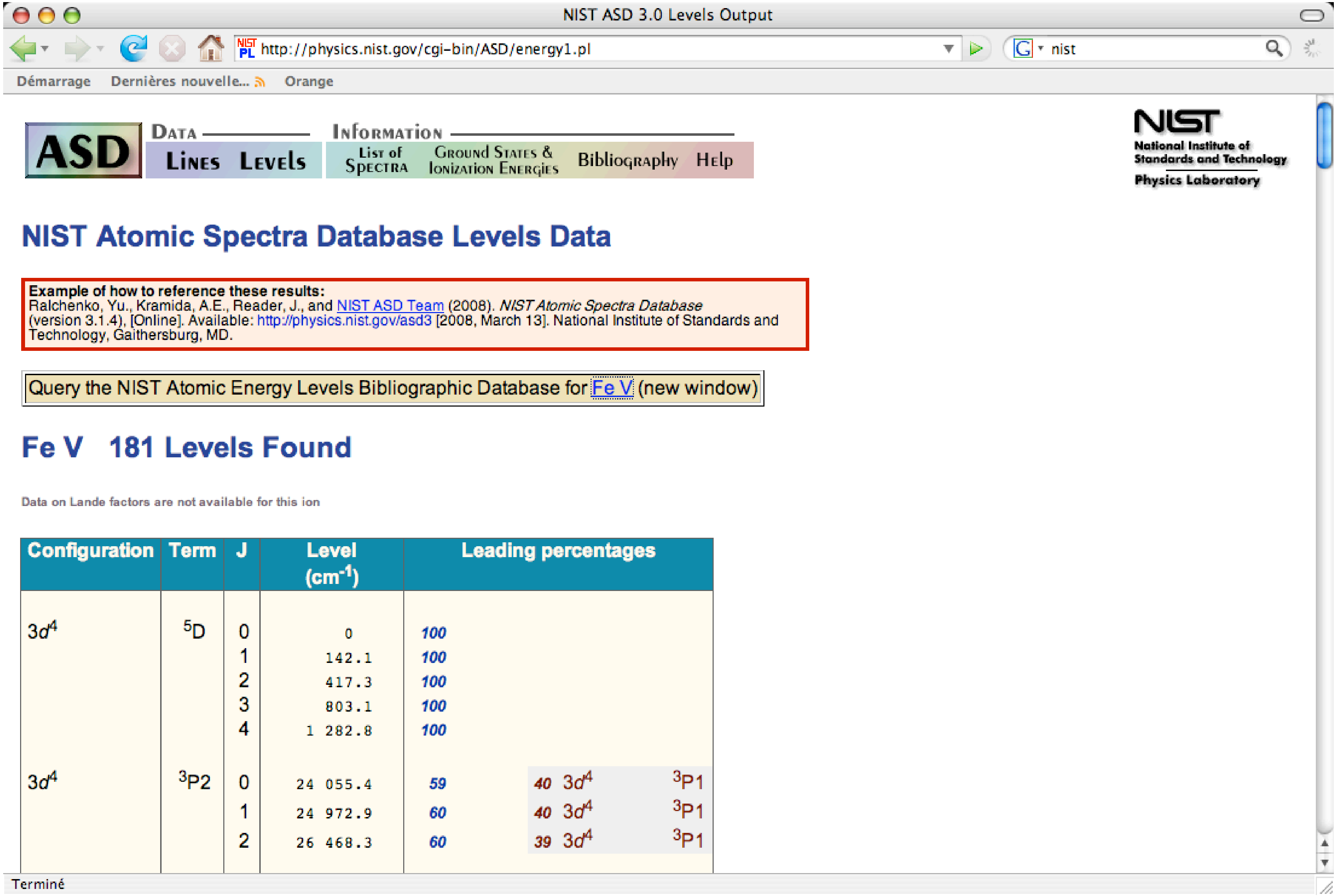
Highest relative intensity: 4000

Observed Wavelength Air (Å)	Ritz Wavelength Air (Å)	Rel. Int. (?)	A_{ki} (s^{-1})	Acc.	E_i (cm^{-1})	E_k (cm^{-1})	Configurations	Terms	J_i - J_k	g_i - g_k	Type	TP Ref.	Line Ref.
2 073.40		10											312
2 093.50		10											312
2 124.69		30											312
2 167.12		10											312
2 173.59		10											312
2 184.68		10											312
2 190.59		10											312
2 194.81		10											312

Terminé

Table II. Experimental and calculated energy levels (cm-1) in the 3d4, 3d34s, 3d34d and 3d35s configuration of Fe V.

Eobs	Ecalc	a	Nb	Composition
J = 0				
0.0	-35	35.0		100% 3d4 5D
24055.4	24090	-34.6		59% 3d4 43P + 40% 3d4 23P + 1% 3d4 41S
39633.4	39619	14.4		78% 3d4 41S + 21% 3d4 01S + 1% 3d4 43P
63420.0	63393	27.0		60% 3d4 23P + 40% 3d4 43P
121130.2	121097	33.2		79% 3d4 01S + 21% 3d4 41S
212542.1	212702	-159.9		84% 4s (4P)3P + 16% 4s (2P)3P
-	214805	-		84% 4s (2P)3P + 16% 4s (4P)3P
-	363599	-		90% 4d (4F)3P + 5% 4d (2P)3P + 3% 4d (32D)3P
367229.4	367151	78.4	5	83% 4d (4F)5D + 17% 4d (4P)5D
381056.6	380983	73.6	1	82% 4d (4P)5D + 17% 4d (4F)5D + 1% 4d (2P)3P
-	385046	-		67% 4d (4P)3P + 16% 4d (2P)3P + 10% 4d (32D)3P
-	389912	-		46% 4d (2P)3P + 23% 4d (4P)3P + 18% 4d (32D)3P
-	394800	-		47% 4d (32D)3P + 29% 4d (2P)3P + 13% 4d (12D)3P
-	404018	-		77% 4d (32D)1S + 21% 4d (12D)1S + 1% 4d (2P)3P
-	415261	-		84% 5s (4P)3P + 12% 4d (2F)3P + 1% 5s (2P)3P
-	417728	-		72% 4d (2F)3P + 14% 5s (4P)3P + 8% 4d (4P)3P
-	421139	-		98% 5s (2P)3P + 1% 5s (4P)3P
-	436619	-		80% 4d (12D)3P + 16% 4d (32D)3P + 1% 4d (4P)3P
-	453556	-		97% 4s2 (3P)3P + 1% 4d (12D)3P + 1% 4d (32D)3P
-	458004	-		76% 4d (12D)1S + 22% 4d (32D)1S + 1% 4s2 (1S)1S
-	498127	-		98% 4s2 (1S)1S + 2% 4d (12D)1S
J = 1				
142.1	110	32.1		100% 3d4 5D
24972.9	24982	-9.1		60% 3d4 43P + 39% 3d4 23P
36925.4	36919	6.4		100% 3d4 3D
62914.2	62881	33.2		60% 3d4 23P + 40% 3d4 43P
186433.6	186443	-9.4		100% 4s (4F)5F
204729.9	204683	46.9		99% 4s (4P)5P + 1% 4s (2P)3P
212818.1	212940	-121.9		87% 4s (4P)3P + 6% 4s (2P)3P + 3% 4s (2P)1P
214611.4	214529	82.4		71% 4s (2P)3P + 14% 4s (32D)3D + 9% 4s (4P)3P



NIST Atomic Spectra Database Levels Data

Example of how to reference these results:
Ralchenko, Yu., Kramida, A.E., Reader, J., and NIST ASD Team (2008). *NIST Atomic Spectra Database* (version 3.1.4), [Online]. Available: http://physics.nist.gov/asd3 [2008, March 13]. National Institute of Standards and Technology, Gaithersburg, MD.

Query the NIST Atomic Energy Levels Bibliographic Database for Fe V (new window)

Fe V 181 Levels Found

Data on Lande factors are not available for this ion

Configuration	Term	J	Level (cm^{-1})	Leading percentages			
$3d^4$	^{5}D	0	0	100			
		1	142.1	100			
		2	417.3	100			
		3	803.1	100			
		4	1 282.8	100			
$3d^4$	^{3}P2	0	24 055.4	59	40	$3d^4$	^{3}P1
		1	24 972.9	60	40	$3d^4$	^{3}P1
		2	26 468.3	60	39	$3d^4$	^{3}P1

VUV SPECTRA OF SMALL MOLECULES

H_2

- Atlas of the VUV Emission Spectrum of H_2 (78.6-171.3nm) Exp
- Line Emission Probabilities for H_2 (B-X, C-X, B'-X, D-X bands) Th
- Continuum Emission Probabilities for the B-X (Lyman), C-X (Werner), B'-X and D-X Bands of the H_2 Molecule Th

D_2

- Line Emission Probabilities for the B-X (Lyman), C-X (Werner), B'-X and D-X Bands of the D_2 Molecule Th

CO

- Absorption Spectra of CO and its Isotopomers (91.2-115.2nm) Exp
- Atlas of the Intersystem Transitions of CO Exp

N_2

- Tables of the VUV Emission Band Systems of N_2 from 82.6 to 124.2 nm Exp
- Extreme ultraviolet laser excitation of isotopic molecular nitrogen : The dipole–allowed spectrum of $^{15}N_2$ and $^{14}N^{15}N$ Exp

Last Update : 11/04/2006

Données expérimentales (M. Eidelsberg, F. Launay, F. Rostas, M. Roudjane, L. Tchang-Brillet):

-Spectres d'émission VUV à haute résolution du spectrographe de 10m de Meudon (500-3000Å)

-Expérience sur synchrotron

-Spectroscopie laser (LCVU d'Amsterdam)

Données théoriques (H. Abgrall, E. Roueff)

- Probabilités de transition $H_{2,}$ D_2

Prêts à être mis en ligne : Systèmes de bandes d'émission D-X, D'-X, B'-X de D_2

VACUUM ULTRAVIOLET EMISSION SPECTRUM OF MOLECULAR HYDROGEN

Title page View

Foreword View

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Tables and Plates

Data

DATA2

Nb	I	l (nm)	s (cm-1)	Assignment	Comment
2316	4	97.6922	102362.34	D'0-4P2	
2317	3	97.6943	102360.08	D'3-6Q3	
2318	0	97.6995	102354.72		
2319	0	97.7025	102351.48	B21-0R14	
2320	13	97.7058	102348.11	B'5-4P2	
2321	3	97.7116	102341.95	B21-2R4	
2322	48	97.7138	102339.67	C5-1Q9	
2323	54	97.7173	102336.08	B'2-3R0	
2324		97.7260	102326.93	B15-1R1	sh
2325	190	97.7316	102321.05	B'2-3R1 B20-2P1	
2326	5	97.7464	102305.55	B12-0P5	
2327					CuII 97.75674
2328	218	97.7663	102284.77	B'0-2P1	b
2329	17	97.7707	102280.13	C2-0R7	
2330	28	97.7728	102277.93	C2-0Q6	
2331	5	97.7781	102272.40	B'5-4R3	
2332	10	97.7812	102269.11	D4-5Q3	
2333	0	97.7862	102263.89	B20-1P9	
2334	75	97.7896	102260.38	B15-1P1	
2335	120	97.7904	102259.57	B'0-2R3	
2336					OI 97.79594
2337	3	97.7956	102254.05	C6-1P11 C5-0P14	
2338	59	97.8011	102248.34	B'2-3R2	
2339	21	97.8127	102236.17	B16-1P4 C3-0Q10	
2340		97.8208	102227.77	B11-0P3 D'3-6Q4	r 102226.67
2341		97.8229	102225.56	B11-0P3 D6-6Q5 B14-0P8	r 102226.67
2342	6	97.8252	102223.17	D'0-4Q4 B18-1P7	
2343	5	97.8294	102218.73	B20-2R2	
2344	36	97.8384	102209.34	C4-1P5 B21-2P4	

ATLAS OF THE INTERSYSTEM TRANSITIONS OF CO

Presentation

Established by:

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on the basis of the paper:

An Atlas of the intersystem transitions of CO
by M. EIDELSBERG and F.ROSTAS
The Astrophysical Journal Supplement Series: **145** , 89-109, March 2003

Scope of the data

The data listed below concern the forbidden triplet-singlet absorption bands of CO, originating from the X $^1S^+$ (v=0) le involving the a'$^3S^+$, e$^3S^-$, and d^3Dstates.

The **line positions and intensities of 41 of these bands are** tabulated up to J=6 in the published version and **up** here. These data were obtained using an improved model developed in a previous paper (Rostas et al., 2000, J. Chem. Phy 4591).

When possible, **the calculated results are compared to experimental or observed ones**, both for line positions oscillator strengths. **The measured band oscillator strengths average to 94% of the calculated ones. A large majority measured values (27 out of 35) are within +/- 15% of the calculated ones**. Thus, in view of the experimental uncerta appears that the current calculated set of oscillator strengths can safely be used for the analysis of future absorption spectra i the CO intercombination bands.

Introduction

Data

Table 1. - Calculated band integrated oscillator strengths of the triplet-singlet transitions of CO.
In column 4, J values marked with an asterisk are determined by extrapolation

References :

a) Herzberg et al., 1955,
b) Simmons et al., 1971,
c) Herzberg et al, 1970
d) Simmons et al., 1969

$a'^3\Sigma+(v)-X^1\Sigma^+(0)$ bands	$d^3\Delta(v)-X^1\Sigma^+(0)$ bands	$e^3\Sigma(v)-X^1\Sigma^+(0)$ bands	All
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Table 2. - Line by line listing of the $a'^3\Sigma^+(v)-X^1\Sigma^+(0)$ bands.
Only those bands including lines of oscillator strengths above 10^{-6} are listed. The branch notation has been simplified in the tables: For example: $^PQ_1$ appears as the Q branch of the F1 sub-band. Similarly $^PP_2$ and $^RR_2$ appear as the P and R branches of the F2 component.

a'5 View Download

Table 3. - Line by line listing of the $d^3\Delta(v)-X^1\Sigma^+(0)$ bands
Same comments as for Table 2. For example: $^PP_2$, $^QQ_2$ and $^RR_2$ appear as the P, Q and R branches of the F2 component.

d1 View Download

Table 4. -Line by line listing of the $e^3\Delta$-$(v)-X^1\Sigma^+(0)$ bands
Same comments as for Table 2. For example: $^QQ_2$ is the Q branch of the F_2 sub-band. $^OP_1$ and $^QR_1$ are the P and R branches of the F1 sub-band.

SPECTRAL LINE SHAPES

BALSS

- Bibliography on Atomic Line Shapes and Shifts (formerly named STARK)

Griem's Tables

- Stark broadening parameters for neutrals and singly charged ions

Last update : 24/01/2008

Projet BELDATA :

Sylvie Sahal-Bréchot et Milan Dimitrijevic

Autres données à venir :

-Profils de raies de H (actuellement au CDS)
(intérêt atmosphères stellaires, enveloppes, intérieurs, plasmas denses)

-Elargissement, dépolarisation des raies par collisions avec H
(intérêt atmosphères solaire, stellaires, THEMIS)

-Facteurs de Landé pour les niveaux d'énergie

- Forces d'oscillateur des transitions A-X de CO