

## REFERENCES

### Electron energy distribution function

- [1] J. Vlcek and V. Pelikan  
*Electron energy distribution function in the collisional-radiative model of an argon plasma*  
J.Phys. D: Appl. Phys., **18**, 347-358, 1985.
- [2] V. Puech and L. Torchin  
*Collision cross section and electron swarm parameter in argon*  
J. Phys. D: Appl. Phys, **19**, 2309-2323, 1986.
- [3] M. Mitchner, Charles H. Krueger Jr.  
*Partially Ionized Gases*  
John Wiley & Sons, Inc., 1973.
- [4] V. E. Golant, A. P. Zilinskij, I. E. Sacharov  
*Fondamenti di fisica dei plasmi*  
Ed. Mir, Mosca, 1983.
- [5] M. J. Pinheiro and J. Loureiro  
*Effective ionization coefficients and electron drift velocities in gas mixtures of SF<sub>6</sub> with He, Xe, CO<sub>2</sub> and N<sub>2</sub> from Boltzmann analysis*  
J. Phys. D: Appl. Phys., **35**, 1-8, 2002.
- [6] T. Holstein  
*Energy Distribution of Electrons in High Frequency Gas Discharges*  
Phys.Rev., **70**, 367–384, 1946.

- [7] H. Brunet and P. Vincent  
*Predicted electron-transport coefficients at high E/N values. I. Hydrogen*  
J. Appl. Phys., **7**, 50, July 1979.
- [8] D. C. Montgomery, D. A. Tidman  
*Plasma Kinetic Theory*  
McGraw-Hill, New York, 1964.
- [9] I. P. Shkarofsky, T. W. Johnston, and M. A. Bachynski  
*The Particle Kinetics of Plasmas*  
Addison-Wesley Publishing Company, Reading, MA, 1966.
- [10] Steven D. Rockwood  
*Elastic and Inelastic Cross Sections for Electron-Hg Scattering from Hg Transport Data*  
Physical Review A, vol. **8**, number 5, 1973.
- [11] R. M. M. Smits and M. Prins  
*The electron energy distribution function in medium pressure inert gas discharges*  
Physica **96C**, 243-261, 1979.

## Collisional-radiative model

- [12] H. W. Drawin and F. Emard  
Z. Phys. **243** pp. 326-340, 1971  
Physica **85C** pp. 333-356, 1977.
- [13] J. Vlcek  
*A collisional-radiative model applicable to argon discharges over a wide range of conditions. I: Formulations and basic data*  
J. Phys. D: Appl. Phys., **22**, 623-631, 1989.

- [14] M. Cacciatore, M. Capitelli and H. W. Drawin  
*Relaxation times for establishing quasi-stationary state populations in non-thermal plasmas*  
Physica **84C**, 267-274, 1976.
- [15] K. Katsonis  
*Report EUR-CEA-FC-820*  
Fontenay-aux-Roses, 1976.
- [16] A. Bogaerts, R. Gijbels and J. Vlcek  
*Collisional radiative model for an argon glow discharge*  
Journal of Applied Physics, vol. **84**, 121-136, 1998.
- [17] J. Vlcek and V. Pelikan  
*Excited level populations of argon atoms in a non-isothermal plasma*  
J. Phys. D: Appl. Phys, **19**, 1879-1888, 1986.
- [18] J. A. M. van der Mullen  
*Excitation Equilibria in Plasmas, a Classification*  
Thesis, Eindhoven University of Technology, 1986.
- [19] J. A. M. van der Mullen  
*Excitation Equilibria in Plasmas, a Classification*  
Physics Reports (Review Section of Physics Letters), **191**, 109-220,  
1986.

## Electric propulsion

- [20] V. M. Nerheim and A. J. Kelly  
*NASA-JPL Technical Report No. 32-1196*  
NASA-JPL Pasadena, CA, USA 1968 (National Aeronautics and  
Space Administration, Washington D.C.)

- [21] V. B. Tikhonov et al.  
*Development and Testing of a New Type of MPD Thruster*  
IEPC-01-123, 27th International Electric Propulsion Conference,  
October 14-19, 2001, Pasadena, CA.
- [22] M. Martinez-Sanchez, J. E. Pollard  
Spacecraft Electric Propulsion-An Overview  
Journal of Propulsion and Power, Vol. **14**, No 5, 668-699, 1998.
- [23] F. Paganucci et al.  
*Performance of an Applied Field MPD Thruster*  
IEPC-01-132, 27th International Electric Propulsion Conference,  
October 14-19, 2001, Pasadena, CA.
- [24] sec353.jpl.nasa.gov/apc/index.html
- [25] V. B. Tikhonov et al.  
*Development and Testing of a New Type of MPD Thruster*  
Paper OR21, 27th European Physical Society Conference on  
Controlled Fusion and Plasma Physics, Budapest, Hungary, 12-16  
June 2000.
- [26] J. S. Sovey and M. A. Mantenieks  
*Perfomance and Lifetime Assesment of MPD Arc Thruster Technology*  
Journal of Propulsion and Power, Vol. **7**, No. 1, 71-83, 1991.
- [27] M Andrenucci et al.  
*Magneto-plasma-dynamic thrusters for space applications*  
AIAA Paper 2002-2185, 14th International Conference on MHD  
Electric Power Generation and High Temperature Technologies,  
Maui, Hawaii, May 20-23, 2002.

## Plasma diagnostics

[28] C. A. Borghi et al.

*Magneto-plasma-dynamic thrusters for space applications*

AIAA Paper 2002-2185, 14th International Conference on MHD Electric Power Generation and High Temperature Technologies, Maui, Hawaii, May 20-23, 2002.

[29] G. Serianni et al.

*Plasma Diagnostic in an Applied Field MPD Thruster*

IEPC-01-135, 27th International Electric Propulsion Conference, October 14-19, 2001, Pasadena, CA.

[30] C. A. Borghi, M. R. Carraro, A. Cristofolini, R. Ghidini, F. Paganucci

*Optical investigations on a Magneto-Plasma-Dynamic thruster*

PDL AIAA Conference, Paper AIAA 2003-4293, Orlando (Florida), June 2003.

[31] C. A. Borghi, M. R. Carraro, A. Cristofolini and R. Ghidini

*Experimenta and Theoretical Investigations on a Magneto-Plasma-Dynamic Thruster*

AIAA Paper 2002-2187, 14th International Conference on MHD Electric Power Generation and High Temperature Technologies, May 20-23, 2002, Maui, Hawaii.

[32] C. A. Borghi, M. R. Carraro, A. Cristofolini and R. Ghidini

*Plasma conditions in the Argon Discharge of an MPD Thruster*

Proceedings of the 14<sup>th</sup> International Conference on Gas Discharge and their Applications, 2-6 September 2002, Liverpool.

- [33] C. A.Borghi, M. R. Carraro, A. Cristofolini, R. Ghidini, F. Paganucci  
*Optical Investigation on the Plasma of the Plume Magneto-Plasma-Dynamic thruster*  
The 5<sup>th</sup> Workshop on Magneto-Plasma-Aerodynamics in Aerospace Applications, Moscow, April 2003.
- [34] G. Serianni et al.  
*Electron temperature measurements in a magneto-plasma-dynamic thruster*  
Proc of XXV International Conference on Phenomena in Ionised Gases, Nagoya, Japan, 17-22 July 2001, Vol. I, p. 311.
- [35] R.L. Kurucz and E. Peytremann  
SAO Special Report 362, 1975.
- [36] Fujimoto et al.  
Nucl. Fusion, **28**, 1255-1263, 1989.
- [37] T. Holstein  
Phys. Rev., **83**, 1159, 1951.
- [38] T. Colbert and J. Huennekens  
Phys. Rev. A, **41**, 6145, 1990.
- [39] Hans R. Griem  
*Plasma Spectroscopy*  
Mc Graw-Hill, 1964.
- [40] Hans R. Griem  
*Principles of Plasma Spectroscopy*  
Cambridge University Press, 1997.
- [41] Richard H. Huddlestone and Stanley L. Leonard  
*Plasma Diagnostic Techniques*  
Academic Press, 1965.

## Cross sections data

- [42] K. F. Man, A. C. H. Smith and M. F. A. Harrison  
*A measurement of the cross section for electron impact ionisation of Ne<sup>+</sup>, Ar<sup>+</sup>, Kr<sup>+</sup>, and Xe<sup>+</sup>*  
J. Phys. B: At. Mol. Phys. **20**, 5865-5880, 1987.
- [43] S. H. Koozekanani  
*Excitation Cross Section of Some of the States of Ne II, Ar II, and Kr II by Electron Collision*  
IEEE Journal of Quantum Electronics, Vol QE-2, No. **12**, Dec. 1966.
- [44] K-H. Tan, F. G. Donaldson, and J. W. McConkey  
*Excitation of the 3s3p<sup>6</sup> 2S and 3s<sup>2</sup> 3p<sup>4</sup> 4s 2P Levels of Ar<sup>+</sup> and the 736 angstrom Line of Ne by Electrons*  
Can. J. Phys., **52**, 786-794, 1974.
- [45] G. J. Fetzer, J. J. Rocca, G. J. Collins and R. Jacobs  
*Model of cw argon ion laser excited by low-energy electron beams*  
J. Applied Physics, **60**, 2739-2753, 1989.
- [46] I. D. Latimer and R. M. St. John  
*Simultaneous Excitation and Ionization of Argon by Electrons to the Upper Laser States of Ar<sup>+</sup>*  
Phys. Rev. A, **1**, 1612-1615, 1966.
- [47] A. I. Imre, A. I. Dashchenko, I. P. Zapesochnyi and V. A. Kel'man  
*Cross Sections for the Excitation of Ar II Laser Lines in Electron-Ion Collisions*  
Zh. Eksp. Teor. Fiz., **15**, No. 12, 712-715, 1972.
- [48] I. P. Zapesochnyi, A. I. Imre and Ya. N. Semenyuk  
*Inelastic collisions of electrons with noble-gas ions*  
Sov. Phys. JEPT, **72**, 400-408, 1991.

- [49] L. Vriens and H. M. Smeets  
*Cross-section and rate formulas for electron-impact ionization, excitation, deexcitation and total depopulation of excited atoms*  
Phys. Rev A, **22**, 940-951, 1980.
- [50] H. S. Brandi and G. F. Koster  
*Parametrization of the Cross section for Low-Energy Electron-Atom Scattering*  
Phys. Rev A, **8**, 1303-1315, 1973.

## Dust particle formations

- [51] A. Bouchoule  
*Dusty Plasmas: Physics, Chemistry and Technological Impacts in Plasma Processing*  
J. Wiley & Sons, 1999.

- [52] Various papers  
*Focus issue on Complex (Dusty) Plasmas*  
New Journal of Physics **5**, 2003.

- [53] W. W. Stoffels and E. Stoffels  
Trends in Vacuum Science & Technology, **4**, 1-35, 2001.

- [54] G. S. Selwyn, J. Singh and S. Bennett  
J. Vac. Sci. Technol. A, **8**, 1726, 1990.  
  
[55] S. Veprek, S. Reiprich and L. Shizi  
Appl. Phys. Lett., **66**, 2640, 1995.

- [56] P. Roca i Cabarrocas, P. Gay and A. Hadjadj  
J. Vac. Sci. Technol. A, **14**, 655, 1996.
- [57] U. Kortshagen and U. Bhandarkar  
Phys. Rev. E, **60**, 887, 1999.
- [58] Y. Watanabe, M. Shiratani, K. Koga  
Plasma Sources Sci. Technol., **11**, A229, 2002.
- [59] L. Boufendi, J. Hermann, A. Bouchoule, B. Dubreuil, E. Stoffels,  
W. W. Stoffels and M. L. de Giorgi  
1994 *J. Appl. Phys.* **76** 148
- [60] L. Boufendi and A. Bouchoule  
Plasma Sources Sci. Technol., **11**, A211, 2002.
- [61] Z. Shen and U. Kortshagen  
J. Vac. Sci. Technol. A, **20**, 153, 2002.
- [62] U. Bhandarkar, U. Kortshagen and S.L. Girshick  
J. Phys. D: Appl. Phys., **36**, 1399, 2003.
- [63] R. Ghidini, C.H.J.M. Groothuis, M.V. Sorokin, W.W. Stoffels and  
G.M.W. Kroesen  
*Electrical and optical characterization of particle formation in argon-silane capacitive coupled radio-frequency discharge*  
Plasma Sources Sci. Technol., **13**, 143-149, 2004.