

Publications in international journals or books:

A. Publications in refereed journals with IF (IF of year of publication):

1995: (IF of 1997, because older data not available)

- 1) Monte Carlo simulation of an analytical glow discharge: motion of electrons, ions and fast neutrals in the cathode dark space.
A. Bogaerts, M. van Straaten and R. Gijbels, *Spectrochim. Acta Part B*, **50**, 179-196 (1995).
IF: 2.448
- 2) Experimental determination of energy distributions of ions bombarding the cathode surface in a glow discharge.
M. van Straaten, A. Bogaerts and R. Gijbels, *Spectrochim. Acta Part B*, **50**, 583-605 (1995).
IF: 2.448
- 3) Description of the thermalization process of the sputtered atoms in a glow discharge, using a three-dimensional Monte Carlo method.
A. Bogaerts, M. van Straaten and R. Gijbels, *J. Appl. Phys.*, **77**, 1868-1874 (1995).
IF: 1.63
- 4) Plasma diagnostics of analytical glow discharges in argon and in neon: Langmuir probe and optical emission spectrometry measurements.
A. Bogaerts, A. Quentmeier, N. Jakubowski and R. Gijbels, *Spectrochim. Acta Part B*, **50**, 1337-1349 (1995).
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- 5) Hybrid Monte Carlo-fluid model of a direct current glow discharge.
A. Bogaerts, R. Gijbels and W.J. Goedheer, *J. Appl. Phys.*, **78**, 2233-2241 (1995).
IF: 1.63
- 6) Modeling of metastable argon atoms in a direct current glow discharge.
A. Bogaerts and R. Gijbels, *Phys. Rev. A*, **52**, 3743-3751 (1995).
IF: 2.764
- 7) The role of fast argon ions and atoms in the ionization of argon in a direct current glow discharge: a mathematical simulation.
A. Bogaerts and R. Gijbels, *J. Appl. Phys.*, **78**, 6427-6431 (1995).
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- 8) Role of sputtered Cu atoms and ions in a direct current glow discharge: combined fluid and Monte Carlo model.
A. Bogaerts and R. Gijbels, *J. Appl. Phys.*, **79**, 1279-1286 (1996).
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- 9) Mathematical description of a direct current glow discharge in argon.
A. Bogaerts and R. Gijbels, *Fres. J. Anal. Chem.*, **355**, 853-857 (1996).
IF: 1.398
- 10) Two-dimensional model of a direct current glow discharge: description of the electrons, argon ions and fast argon atoms.
A. Bogaerts, R. Gijbels and W.J. Goedheer, *Anal. Chem.*, **68**, 2296-2303 (1996).
IF: 4.743
- 11) Two-dimensional model of a direct current glow discharge: description of the argon metastable atoms, sputtered atoms and ions.
A. Bogaerts and R. Gijbels, *Anal. Chem.*, **68**, 2676-2685 (1996).
IF: 4.743
- 12) Relative sensitivity factors in glow discharge mass spectrometry: the role of charge transfer ionization.
A. Bogaerts and R. Gijbels, *J. Anal. Atom. Spectrom.*, **11**, 841-847 (1996).
IF: 3.595

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- 13) Three-dimensional density profiles of sputtered atoms and ions in a direct current glow discharge: experimental study and comparison with calculations.
A. Bogaerts, E. Wagner, B.W. Smith, J.D. Winefordner, D. Pollmann, W.W. Harrison and R. Gijbels, *Spectrochim. Acta Part B*, **52**, 205-218 (1997).
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- 14) Three-dimensional density profiles of the argon metastable atoms in a direct current glow discharge: experimental study and comparison with calculations.
A. Bogaerts, R.D. Guenard, B.W. Smith, J.D. Winefordner, W.W. Harrison and R. Gijbels, *Spectrochim. Acta Part B*, **52**, 219-229 (1997).
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- 15) Comparison of argon and neon as discharge gases in a direct current glow discharge: a mathematical simulation.
A. Bogaerts and R. Gijbels, *Spectrochim. Acta Part B*, **52**, 553-566 (1997).
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- 16) Calculation of crater profiles on a flat cathode in a direct current glow discharge, and comparison with experiment.
A. Bogaerts and R. Gijbels, *Spectrochim. Acta Part B*, **52**, 765-778 (1997).
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- 17) Computer simulation of an analytical direct current glow discharge in argon: influence of the cell dimensions on the plasma quantities.
A. Bogaerts and R. Gijbels, *J. Anal. Atom. Spectrom.*, **12**, 751-759 (1997).
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- 18) Modeling of glow discharge sources with flat and pin cathodes and implications for mass spectrometric analysis.
A. Bogaerts and R. Gijbels, *J. Am. Soc. Mass Spectrom.*, **8**, 1021-1029 (1997).
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- 19) Recent trends in solids mass spectrometry: GDMS and other methods.
R. Gijbels and A. Bogaerts, *Fresenius' J. Anal. Chem.*, **359**, 326-330 (1997).
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- 20) Three-dimensional modeling of a direct current glow discharge in argon: is it better than one-dimensional modeling ?
A. Bogaerts and R. Gijbels, *Fresenius' J. Anal. Chem.*, **359**, 331-337 (1997).
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- 21) Modeling of glow discharges: what can we learn from it?
A. Bogaerts and R. Gijbels, *Anal. Chem.*, **69**, A719-A727 (1997) (**paper on invitation**).
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1998:

- 22) Fundamental aspects and applications of glow discharge spectrometric techniques.
A. Bogaerts and R. Gijbels, *Spectrochim. Acta Part B*, **53**, 1-42 (1998) (**paper on invitation**).
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- 23) Comprehensive description of a Grimm-type glow discharge source used for optical emission spectrometry: a mathematical simulation.
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- 24) Collisional-radiative model for an argon glow discharge.
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- 25) Comprehensive three-dimensional modeling network for a dc glow discharge plasma.
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- 26) Influence of sticking coefficients on the behavior of sputtered atoms in an argon glow discharge: modeling and comparison with experiment.
A. Bogaerts, J. Naylor, M. Hatcher, W.J. Jones and R. Mason, *J. Vac. Sci. Technol. A*, **16**, 2400-2410 (1998).
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- 27) Modeling of glow discharge optical emission spectrometry: calculation of the argon atomic optical emission spectrum.
A. Bogaerts, R. Gijbels and J. Vlcek, *Spectrochim. Acta Part B*, **53**, 1517-1526 (1998).
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- 28) Collisional-radiative model for the sputtered copper atoms and ions in a direct current argon glow discharge.
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A. Bogaerts and R. Gijbels, *J. Anal. Atom. Spectrom.*, **13**, 721-726 (1998).
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- 43) Spatial behavior of energy relaxation of electrons in capacitively coupled discharges: comparison between Ar and SiH₄.
M. Yan, A. Bogaerts, R. Gijbels and W.J. Goedheer, *J. Appl. Phys.*, **87**, 3628-3636 (2000).
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