

CURRICULUM VITAE

1. **Full Name** : DESCOUVEMONT, Pierre

2. **Date and place** of birth: september 15, 1958 (Brussels, Belgium)

3. **Address** : Physique Nucléaire Théorique et Physique Mathématique, CP229
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5. **Positions** :

1/10/1981-30/9/1982: Research fellow IISN

1/10/1982-30/9/1986: Research fellow FNRS

1/10/1986-30/9/1988: Postdoctoral Researcher FNRS

1/10/1988-30/9/1989: Postdoctoral Researcher IAP

1/10/1989-30/9/1994: Research Associate FNRS

1/10/1994-30/9/1998: Senior Research Associate FNRS

Since 1/10/1999: Research Director FNRS

Since 1/10/2004: head of the nuclear physics department (ULB)

6. **Academic degrees** :

- Engineer in physics (ULB, July 1981)
- Ph.D. thesis (ULB, March 1986)
- Habilitation thesis (ULB, April 1989)

7. **Research topics**

- Microscopic cluster models
- Spectroscopy of light nuclei
- Low energy nuclear reactions
- Nuclear astrophysics
- Breakup reactions, CDCC method

8. **Teaching at ULB**

Note: my position is a research position, and teaching is optional.

- “Quantum theory of collisions” (2 ECTS) 2005-2008
- “Quantum theory of collisions and applications to nuclear reactions” (Faculty of Sciences, 3+2 ECTS) since 2009
- “Nuclear Physics” (Faculty of Applied Sciences, 3+2 ECTS) since 2010

9. **Other activities**

- Member of the nuclear physics board of the EPS
- Member of the Scientific committee of the Joliot-Curie school

- Member of the ESF European committee
- Member of the PAC of LNS Catania (Italy)

11. Referee activities

- Frequently referee at Phys. Rev. C, Phys. Rev. Lett., Rev. Mod. Phys., Eur. J. Phys.A, J. Phys. G, Nucl. Phys. A, Phys. Lett. B
- Outstanding referee of the APS (2011)

11. Publications

- Book:
 - Theoretical Models for Nuclear Astrophysics**
Nova Science Publishers (New York) 2003
P. Descouvemont
- Invited/review papers
 - **Développements théoriques récents en astrophysique nucléaire**
Annales de Physique 26 (2001) 3-85
P. Descouvemont
 - **Theoretical Models for Nuclear Astrophysics**
in "Focus on astrophysics research", ed. L.V. Ross (Nova Science Publisher, 2003)
P. Descouvemont
 - **Cross section predictions for hydrostatic and explosive burning**
Nucl. Phys. A777 (2006) 137
P. Descouvemont, T. Rauscher
 - **P. Descouvemont, D. Baye**
The R-matrix theory
Rep. Prog. Phys. 73 (2010) 036301
 - **Three- α continuum states**
J. Phys. G 37 (2010) 064010
P. Descouvemont
 - **Microscopic cluster models**
Lecture notes in physics 848 (2012) 1
P. Descouvemont and M. Dufour
 - **Nuclear astrophysics: nucleosynthesis in the Universe**
Int. J. of Astrobiology, FirstView Article (2012) 1-8
A. Lépine-Szilgyi, P. Descouvemont
- Compilations for nuclear astrophysics
 - **A compilation of charged-particle induced thermonuclear reaction rates**
Nucl. Phys. A 656 (1999) 3-183
C. Angulo, M. Arnould, M. Rayet, P. Descouvemont, D. Baye, C. Leclercq-Willain, A. Coc, S. Barhoumi, P. Aguer, C. Rolfs, R. Kunz, J.W. Hammer, A. Mayer, T. Paradellis, S. Kossionides, C. Chronidou, K. Spyrou, S. Degl'Innocenti, G. Fiorentini, B. Ricci, S.
 - **Compilation and R-matrix analysis of Big Bang nuclear reaction rates**
At. Data Nucl. Data Tables 88 (2004) 203
P. Descouvemont, A. Adahchour, C. Angulo, A. Coc, E. Vangioni-Flam
 - **Z = 30-47. Excited Nuclear States**
Numerical Data and Functional Relationships in Science and Technology; Springer 2012, vol 25b
Z.N. Soroko, S.I. Sukhoruchkin, U. Kneissl, P. Descouvemont, A. Zilges
- Book editor
 - "International Workshop on the State of the Art in Nuclear Cluster Physics (SOTANCP2010)"
Brussels (Belgium) 25-28 May 2010, *Int. J. Mod. Phys. E 20 (2011) vol.4*, ed. P. Descouvemont, M. Dufour, J.-M. Sparenberg
- A full list of publications can be found at <http://pntpm4.ulb.ac.be/pubs.aspx>