

## CURRICULUM VITAE

- **Name:** SAMYN
- **First name:** Denis
- **Age:** 29 years
- **Birthplace and date:** Mouscron (Belgium), 5<sup>th</sup> Sept. 1977
- **Nationality:** Belgian



### Academic background

- **Post-doc fellow**, Laboratoire de Glaciologie, Université Libre de Bruxelles, Belgium. Financed by the Belgian Science Policy Office, through the *ASPI* (Antarctic Subglacial Processes and Interactions) research program.  
**Responsible for** 1°) the multi-parametric analysis of basal ice and marine ice samples and 2°) the set-up of an Ice Deformation Laboratory and an Automatic Ice Fabric Analyser.
- **PhD in Geology**, Laboratoire de Glaciologie, Université Libre de Bruxelles, Belgium. Grant financed by the National Science Foundation (FRIA.) from Sept. 2001 to Sept. 2005. Supervisors: Prof. R. Souchez and R. Lorrain.  
**PhD thesis title:** “*Structural and geochemical analysis of basal ice from Taylor Glacier, Dry Valleys, Antarctica: On the role and behaviour of the interstitial fluid phase*”.
- **Master in Earth Sciences**, ULB, Laboratoire de Glaciologie, Belgium, 2002 - 2003.  
**Master thesis title:** “*Equifinality of basal ice facies at the base of an Antarctic cold glacier*”. Supervisors: Prof. R. Souchez and R. Lorrain.
- **M.Sc. in Geology**, Université Catholique de Louvain, Belgium. 1998 – 2001.  
**M.Sc. thesis title:** “*Deformation and composition of basal ice from Taylor Glacier, Dry Valleys, Antarctica*”. Supervisors: Prof. R. Souchez and R. Lorrain.
- **Complementary Certificate in Archeology and Art History**, Université Catholique de Louvain, Belgium, 1999 – 2000.
- **B.Sc. in Geology**, Université Catholique de Louvain, Belgium, 1996 – 1998.

### Published papers

- Durand, G., **Samyn, D.**, Persson, A. and Svensson, A. **2007**. Relation between neighbouring grains in the upper part of the NorthGRIP ice core – Implications for rotation recrystallization. *Earth and Planetary Science Letters*, under review.
- **Samyn, D.** and Svensson, A. **2007**. Discontinuous recrystallization in cold basal ice from an Antarctic glacier: dynamic implications. *Journal of Geophysical Research*, under review.
- Fitzsimons, S., Webb, N., Mager, S., MacDonell, S., Lorrain, R. and **Samyn, D.** **2007**. Mechanisms of basal ice formation in polar glaciers: an evaluation of the apron entrainment model. *Journal of Geophysical Research (Earth Surface)*, accepted for publication.
- **Samyn, D.**, Fitzsimons, S. and Lorrain, R. **2005**. Strain-induced phase changes within cold basal ice from Taylor Glacier (Antarctica) indicated by textural and gas analyses. *Journal of Glaciology*, vol. 51, No. 175, 611-619.
- **Samyn, D.**, Svensson A., Fitzsimons, S. and Lorrain, R. **2004**. Crystallographic evidences for enhanced deformation at the base of cold Antarctic glaciers: examples from amber ice. *Annals of Glaciology*, vol. 40, 185-190.
- NGRIP Members [whom **Samyn, D.**]. **2004**. High-resolution record of Northern Hemisphere climate extending into the last interglacial period. *Nature*, 432, 147-151.
- Souchez, R., **Samyn, D.**, Lorrain, R., Pattyn, F. and Fitzsimons, S. **2004**. An isotopic model for basal freeze-on associated with subglacial upward flow of pore water. *Geophysical Research Letters*, vol. 31, L02401.
- Sleewaegen, S., **Samyn, D.**, Fitzsimons, S. and Lorrain, R., **2003**. Equifinality of basal ice facies from an Antarctic cold-based glacier. *Annals of Glaciology*, vol. 37, 257-262.

## Scientific reports

- Pattyn, F. et al. [whom **Samyn, D.**]. **2007**. Antarctic Subglacial Processes and Interactions: role of transition zones in ice sheet stability (ASPI). Research Program on the Antarctic, Phase VI, Belgian Federal Science Policy Office (BELSPO). Research Proj. rep. SD/CA/02.
- Lorrain, R. et al. [whom **Samyn, D.**]. **2005**. Antarctic ice-sheet dynamics and climatic change: Modelling and Ice Composition Studies (AMICS). Belgian Research Program on the Antarctic, Phase V, Belgian Science Policy Office. Research Proj. rep. EV/03/08, 84 pp.

## Presentations at international symposia and workshops

- **7 oral presentations** and **10 poster presentations** at international scientific symposia.

## Field work

- **Minna Bluff, McMurdo Ice Shelf, Antarctica**, Austral summer 2007. Radio-echo sounding of sedimentary structures at the ice sheet/ice shelf transition and marine ice drilling.
- **Glacier Tsanfleuron, Switzerland**, Sept. 2006. Preparation for a polar drilling expedition.
- **McCall Glacier, Alaska**, Aug. 2006. Radio-echo sounding (with ice-penetrating radar) of the glacier bed (with Dr. Matt Nolan, Univ. of Alaska Fairbanks).
- **Tsanfleuron Glacier, Switzerland**, Sept. 2004. Maintenance of snow/ice temperature logging stations and data downloading (with Prof. B. Hubbard, Aberystwyth Univ., UK).
- **NGRIP (North GREENland Ice Core Project), Greenland**. Season 2003. Representative in the field of the Belgium glaciology group. General field assistant on site, shallow drill assistant, sample processing assistant (ECM and stable isotope processing, thin sections).
- **Victoria Upper Glacier, Dry Valleys of McMurdo, Antarctica**, Austral summer 2003. General field assistant: excavation of a 30m-long subglacial tunnel, sampling of basal ice, drilling of lake ice cores, measurements of glacier ice thickness (ice-penetrating radar).
- **Connemara, Ireland**, July 2000. Fieldwork in regional geology and cartography, as part of the *M.Sc. in Geology*, Université Catholique de Louvain.
- **Tournai, Belgium**, July 1999. Fieldwork in Carolingian and Merovingian archaeology, Cathedral of Tournai (Belgium), as part of the *Complementary Certificate in Archeology and Art History*, Université Catholique de Louvain.
- **Scotland, GB**, July 1998. Fieldwork in regional geology and cartography, as part of the *B.Sc. in Geology*, Université Catholique de Louvain.

## Grants

- Travel Scholarship from **Be-Poles** (Belgian Science Policies) for a short term scientific visit to the **Glaciology Group of the Niels-Bohr Institute** (Copenhagen Univ., DK), Nov. 2006.
- Grants from **FNRS** (Belgian National Science Foundation) for attending to the « *General Assembly of the European Geosciences Union* », April 2005 and 2007, Vienna (Austria).
- Financial assistance from **FNRS** (Belgian NSF) for training in crystallographic techniques at the **Glaciology Group (Niels-Bohr Institute)** of the University of Copenhagen, Dec. 2004.
- Grant from **FNRS** for attending to the « *International Symposium on Ice and Water Interactions* », July 2004, Portland (Oregon, USA).
- Grant from **NIPR (Japanese National Institute for Polar Research)** for attending to the « *26<sup>th</sup> Symposium on Polar Meteorology and Glaciology* », Nov. 2004, Tokyo (Japan).
- Grant from **FNRS** for attending to the « *7<sup>th</sup> International Symposium on Antarctic Glaciology - ISAG-7* », August 2003, Milan (Italy).
- Grant from **Communauté Française de Belgique** for attending to the « *7<sup>th</sup> International Symposium on Antarctic Glaciology - ISAG-7* », August 2003, Milan (Italy).
- Financial assistance from **FNRS** for participating to **NorthGRIP (North Greenland Ice Core Project)**, Season 2003.
- PhD grants from **FRIA** (Belgian National Science Foundation) from Oct. 2001 to Sept. 2005.

## Study sites

- **Taylor Glacier**, *Dry Valleys of McMurdo*, Antarctica;
- **Suess Glacier**, *Dry Valleys of McMurdo*, Antarctica;
- **Rhone Glacier**, *Dry Valleys of McMurdo*, Antarctica;
- **Meserve Glacier**, *Dry Valleys of McMurdo*, Antarctica;
- **Wright Lower Glacier**, *Dry Valleys of McMurdo*, Antarctica;
- **Victoria Upper Glacier**, *Dry Valleys of McMurdo*, Antarctica;
- **Mullins Glacier**, *Dry Valleys of McMurdo*, Antarctica;
- **EDML (Epica Dronning Maud Land)**, *Dronning Maud Land*, Antarctica;
- **EDC (Epica Dome C)**, Antarctica;
- **Minna Bluff**, *McMurdo Ice Shelf*, Antarctica;
- **McCall Glacier**, *Brooks Range*, Alaska;
- **NGRIP**, *North Greenland Icecore Project*, Greenland.

## Student follow-up

- **Boereboom, T.** (under way) - "*Physical and geochemical properties of two ice-wedges at Cape Mamontovy Klyk, Laptev Sea, Northern Siberia*", ULB, PhD thesis (co-promotor);
- **Remy, J.-P.** (under way) - "*Physical and geochemical properties of marine ice : implications for the stability of ice shelves in Antarctica*", ULB, PhD thesis (co-promotor);
- **Van Humbeeck, F.** (under way) - "*Analysis of basal ice from Akademii Nauk ice sheet, Severnaya Zemlya archipelago, Russian Arctic*", ULB, master thesis (co-promotor & examiner);
- **Quets, G.** (2006) - "*Mineralogical and morphoscopy study of particles from basal and amber ice, Dry Valleys (Victoria Land, Antarctica)*", ULB, master thesis (co-promotor & examiner);
- **Kummert, P.** (2006) - "*Do rock glaciers from Mullins Valley (Dry Valleys, Antarctica) record a reliable palaeoclimatic signal?*", ULB, master thesis (examiner);
- **De Brouwer, G.** (2006) - "*Do rock glaciers from Mullins Valley (Dry Valleys, Antarctica) record a reliable palaeoclimatic signal?*", ULB, master thesis (examiner);
- **Delcourt, C.** (2006) - "*Alaskan glaciers and climate change*", ULB, master thesis (examiner);
- **Debecker, F.** (2003) - "*Basal ice study from a cold Antarctic glacier (Wright Lower Glacier, Victoria Land)*", ULB, master thesis (assistance);
- **Petit, S.** (2003) - "*Study of debris-rich ice from a cold Antarctic glacier (Rhone Glacier, Victoria Land)*", ULB, master thesis (assistance).

## Professional memberships

- **American Geophysical Union**, since 2005.
- **European Geosciences Union**, since 2005.

## Other relevant information

- **Alpinism instructor**, Belgian Alpine Club, under way.
- **European Red Cross First Aid Certificate** ("*Brevet Européen de Premiers Secours*"), Belgian Red Cross, Brussels, October 2002.
- **Belgian Military Flying School**, Safraanberg-Goetsenhoven, 1995-1996. Student Pilot on *Marchetti SF 260* (until Solo Flight). Resignation for personal reasons.
- **Belgian Air Cadets**, Koksijde-Oostmalle-Florennes, Glider formation on various plane types (K13, K8, Twin Aster, Pegase), 1992-1995.
- **Sport instructor** at *A.D.E.P.S.*, Belgian Sport Policies, Mouscron-Péronnes, 1993-1995.