

CASE STUDY

Visiting Wroclaw University of Technology, Poland



Morgane Bellec of École Centrale de Lille takes us through the opportunities and inspiration that taking part in BRISK Transnational Access can offer

The main objective of my Masters thesis was to further investigate the factors influencing the thermal behaviour and kinetics of devolatilisation of several cellulose components. Thanks to the BRISK Transnational Access programme, I was able to perform experiments at Wroclaw University of Technology (WROC) in Poland, where I conducted experimental investigations into celluloses derived from various biomass fuels by conducting Thermogravimetric Analysis/Differential Scanning Calorimetry (TGA/DSC) coupled with Fourier Transform Infrared Spectroscopy (FTIR) tests.

It was not difficult to apply to take part in the BRISK Transnational Access programme and everyone involved in the application process was very helpful. I



Figure 1: TGA/DSC coupled with FTIR.



Figure 2: Samples for TG analysis: holocellulose, lignin and cellulose leached from straw.

am especially grateful to all the members of WROC's Energy Engineering and Technology Division for welcoming me warmly into their laboratories. Their help with all of the practical details of my stay, as well as with the experimental work itself, was invaluable. Thanks to their patient guidance, I managed to learn the use of TGA/DSC coupled with FTIR, which was a completely new technique for me. The results I obtained constituted not only the basic data I needed to complete my Master thesis, but also the material for a possible publication.

My visit to the university also allowed me some time to explore, and I truly enjoyed my stay in Wroclaw. The city is the capital of Lower Silesia, which is in the northwest part of Poland. As it is situated on the river Odra, it consists of twelve lovely islands covered by plenty of green areas, and connected by over a hundred bridges. Its unique location close to Germany and the Czech Republic is responsible for a rich but turbulent history, which is still visible through the beautiful architecture. The university itself is just at the edge of the city centre, with good tram links and nearby restaurants and bars.

My experience of the BRISK project was certainly an inspiring one, as it was the trigger that convinced me to go on in the research field and to continue my studies by undertaking a PhD. Thanks to the technical and

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Figure 3: The Wroclaw University campus.

professional competencies I was able to develop through my BRISK project, I couldn't have felt better prepared for the new challenge. I would therefore highly recommend that any researcher takes the great opportunity of applying to the BRISK Transnational Access programme. It is the best way to gain access to high quality experimental setups that would otherwise be out of reach, and above all, to meet amazing people in the field that will broaden your mind with new ideas on your work.



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Figure 4: Morgane Bellec with members of Wroclaw University.

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