

The 7th Alpine Solid State NMR conference was held from the 11th September to 15th September inclusive in Chamonix, France. As a result of a travel fund from Bruker I was able to attend the conference and present a poster entitled: **¹⁴N-¹H Correlation Spectra at 850 MHz**. The results shown were recorded at the UK 850 MHz Solid-State NMR National Facility.

The oral presentations ran throughout the week. The talks covered a variety of research areas. NMR of proteins was well represented indicating their current importance within the field. Dynamic Nuclear Polarization (DNP) was also prominent. A range of ideas for system set-up and consequent applications to different samples, particularly proteins, allowed for interesting comparisons to the set-up present at Warwick. For my own research it was useful to have ¹⁴N talks included within the program. Direct and indirect detection methods were presented with emphasis placed on the application of different pulse schemes to ¹⁴N in order to enhance signal and/or resolution. This is an area that we have not spent a significant time developing to date but would potentially allow us to further improve the quality of our spectra. Additionally talks including dephasing techniques applied to ¹⁵N in proteins and decoupling techniques directly related to my current research avenues. The special lecture given by Thomas Ebbesen was an interesting break from NMR with a Physics talk concerning optical transmission through surface plasmons which challenged accepted theories and also has a significant impact in many applications.

The two poster sessions allowed for questioning and insight into fellow community members work and the opportunity to present our work. Many of the posters were of direct interest to my research, including ¹⁵N cross-polarization investigations, determining proton distances through misalignment of homonuclear decoupling parameters, investigations into different pharmaceutical salts using experimental and DFT calculations, and research into homonuclear and heteronuclear decoupling schemes. Additionally it was of valuable to see different research areas within the field which are not currently applicable to my research. These included but were not limited to protein work, inorganic materials and pulse sequence development. The second poster session allowed me to present our data to fellow attendees and discuss others research into ¹⁴N NMR and possible applications of our pulse sequence to other materials. Additionally useful discussions with researchers currently investigating different recoupling schemes used in the pulse sequence with the purpose of reducing t_1 noise, which has proved to be an issue for some materials in our work.

Finally the conference allowed me the opportunity to meet people from within the community, both from academic and industrial backgrounds.