

I worked at the National Institute for Materials Research in a town called Tsukuba, north east of Tokyo. I was working under the supervision of Prof Yoshihiko Takano on the development of iron based superconductors in the Nano frontier Materials group. My PhD project focuses on the synthesis and characterization of nanomaterials and the initial premise of the project in Japan was to investigate the feasibility of synthesising an iron based superconductor on the nanoscale. Over the course of the summer I learned various synthetic and analytical techniques suited to producing single/polycrystalline samples. This included how to measure their physical characteristics such as magnetism and electrical resistivity under various temperature and pressure conditions. The facility comprised of a great number of research groups from all aspects of materials research and was populated not only by those from Japan but by many researchers from around the world. This was a stimulating atmosphere to work in and has left me with the motivation to work in similar surroundings. Although Tsukuba itself was a small, quiet town it was a short train journey from the heart of Tokyo. This made it an excellent location to travel from and as a result I was able visit several locations around the country. Therefore I was able not only to experience the hard work ethic of the laboratory but become more familiar with a very modernized society rooted in more traditional values. This mix of work and travel was an immensely enlightening experience since I was able to not only broaden my horizons in terms of scientific research but learn about daily life in an environment so different from my own. I feel the summer period served as an excellent introduction to Japan and has set the temptation to return and work there on a longer term basis.