Outline of Solid-State NMR Spectral Database (SSNMR_SD)

Solid-State NMR Spectral Database (SSNMR_SD) is a spectral database, which includes NMR spectra of mainly solid samples. Most of the spectra have been measured by solid-state NMR researchers in our institute, National Institute of Advanced Industrial Science and Technology (AIST), Japan (or the former Institutes, National Chemical Laboratory for Industry and National Institute of Materials and Chemical Research).

Measurements of high-resolution solid-state NMR spectra started to spread in 1980's by use of magic angle spinning (MAS) technique. High-resolution spectra similar to those for liquid and solution samples can be obtained even for solid samples. Consequently, the applied fields of solid-state NMR have been expanded rapidly. However, when one wishes to measure solid-state NMR spectra of target samples, one should set up the instrument and measure a spectra of a standard sample before one measures the spectra of the target samples. One may worry about selection of the standard sample and selection of NMR measuring parameters because there are a variety of nuclei as well as various substances. One may also worry about whether the measured spectrum has high-quality or not, especially when one measures the nucleus or the sample for the first time.

In our institute, the solid-state NMR researchers have measured high-resolution solid-state NMR spectra since the mid of 1980's, contributing to materials research. There are a number of data of standard samples in the accumulated data. This database tries to open those data to public. We hope that this database contributes to the development of solid-state NMR as well as to other research and development.

We started to construct the database in April, 2007 and opened it to public in January 2008. The database was closed to public in October, 2013. We started to re-construct the database in January, 2015, and have opened it public in April, 2016.

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