

**Postdoctoral Research Associate  
in Solid State NMR Spectroscopy**

**Chemical Sciences Division  
Physical Sciences Directorate  
Oak Ridge National Laboratory  
Oak Ridge, Tennessee**

**ORNL09-105-CSD**

**Project Description:**

The position is an integral part of a project that investigates the synthesis, structure, and dynamics of a broad spectrum of engineered mesoporous metal oxides which find use in both catalysis and separation applications. Surface functionality of mixed metal oxides and interactions with surface species are of fundamental interest and will be characterized using the full arsenal of solid state NMR tools that establish atom-atom connectivity and local structure (HETCOR, REDOR, MQMAS/TRAPDOOR, etc.). A second research area focuses on hydrogen mobility on surfaces studied primarily through <sup>1</sup>H FASTMAS and DQ NMR methods to understand the role of water and solvents in interface chemistry. These experiments will be implemented on a recently acquired 700 MHz spectrometer available in our group.

**Qualifications:**

The position requires a Ph.D. in chemistry or related field. The successful candidate must have a strong background and demonstrated experience in solid state NMR. Experience in NMR spectroscopy of quadrupolar nuclei is highly desirable.

Applicants cannot have received the most recent degree more than five years prior to the date of application appointment and must complete all degree requirements before starting their appointment.

**Technical Questions:**

Technical questions regarding the position can be directed to Ed Hagaman at [hagamanew@ornl.gov](mailto:hagamanew@ornl.gov). Please reference this position title in your correspondence.

**How to Apply:**

Qualified applicants may apply online at [https://www2.ornl.gov/ORNL\\_POST/](https://www2.ornl.gov/ORNL_POST/). All applicants will need to register before they can begin the online application. For complete instructions, on how to apply, please see the instructions at <http://www.ornl.gov/orise/edu/ornl/ornl-pdpm/application.htm>. When applying for this position, please reference the position title and number.

This appointment is offered through the ORNL Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The program is open to all qualified U.S. and non-U.S. citizens without regard to

race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.