Dr. Okkyun Seo

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Dr. Okkyun Seo has been a researcher at the SPring-8 synchrotron radiation facility in Japan since 2021 and currently works as a beamline scientist on the hard X-ray photoelectron spectroscopy (HAXPES) beamline.

Dr. Seo received his Ph.D. in Materials Science and Engineering from the Gwangju Institute of Science and Technology (GIST) in 2016. During his doctoral studies, he focused on studying phase transitions in binary nanocrystals using synchrotron X-ray diffraction.

From 2016 to 2021, he worked as a postdoctoral researcher at the National Institute for Materials Science in Japan, where he studied the catalytic reactions of metal nanoparticles and the lattice response of oxide semiconductors using synchrotron radiation-based X-ray tools. In particular, he conducted in-depth research on the application of synchrotron X-rays to various in situ reactions, including in situ XAFS, ambient-pressure XPS, and time-resolved XRD.

Since joining SPring-8 in 2021, he has been conducting the reaction mechanisms and behaviors of energy materials and catalysts at the liquid-solid and gas-solid interfaces using ambient-pressure HAXPES.