

In demand from Seoul to Berlin: green energy of the future

Start Time: Wednesday, March 27, 2024

End Time:



The UniSysCat group of [Prof. Kallol Ray](#) studies the function of natural catalysts, namely metalloenzymes. These enzymes contain frequently occurring metals (Fe, Cu, Co, Mn and Ni) in their active centers and are therefore of great interest for industrial chemical reactions, including the production of green energy. Now the group is receiving prominent support from Seoul: [Prof. Wonwoo Nam](#) who is Distinguished Professor of Chemistry and Nanoscience at Ewha Womans University in Seoul, Korea, visits the group at HU Berlin for a four-year research stay to work on green catalytic systems.

Wonwoo Nam is known for his outstanding and fundamental contributions to bioinorganic chemistry, in particular the elucidation and imitation of fundamental bioinorganic catalytic processes. His current research focuses on the mechanistic studies of dioxygen activation and formation and oxygen atom transfer reactions by biomimetic models of iron enzymes. His research stay in Berlin is made possible by the Einstein Foundation Berlin and thanks to the Alexander von Humboldt Research Award with the aim of establishing a joint research group with scientists from Ewha Womans University and Humboldt University.

The joint project "Developing Green Catalytic Systems Utilizing Bioinspired Metal Catalysts" is based at UniSysCat. Inspired by nature, the project is investigating how metalloenzymes can be used for artificial photosynthesis. This could, for example, make industrial processes more

energy-efficient and improve sustainable energy production.

The [Alexander von Humboldt Foundation](#) annually awards the Humboldt Research Award to internationally leading researchers of all disciplines from abroad and is endowed with 60,000 euros.

The Einstein Foundation supports scientists from abroad. As [Einstein Visiting Fellows](#), top foreign scientists set up a working group with a Berlin host in order to carry out a joint research project through regular exchanges and visits.