

Great support to "overcome the limits of photocatalysis"

Start Time: Thursday, May 5, 2022

End Time:



UniSysCat group leader Dr. Bartholomäus Pieber from the [Max Planck Institute of Colloids and Interfaces](#) receives funding of around 839,000 Euros for his photocatalysis research. With his group, he is working on novel ways of using light to synthesize important chemicals. The Boehringer Ingelheim Foundation is supporting Dr. Pieber's project for three years as part of its Perspectives Programme "[Plus 3](#)".

The group of Bart Pieber wants to imitate nature's mechanism for converting light into chemically usable energy. Currently, there are only a very small number of photocatalysts that make visible light usable for chemical synthesis - usually expensive noble metal complexes. This bottleneck of catalysts severely limits the potential of photocatalysis. In contrast, nature is able to use organic dyes with short lifetimes as photocatalysts. Pieber's research group is now trying to replace noble metal complexes with organic, sustainable standard dyes as photocatalysts by mimicking nature's concept.

"We recently discovered that short-lived excited states can be harnessed by bringing a dye close to a target molecule," says Bart Pieber. "This groundbreaking research will open up new territory in synthetic photocatalysis and provide new opportunities to control the selectivity of chemical reactions."

With the "[Plus 3](#)" programme, the Boehringer Ingelheim Foundation supports outstanding junior research group leaders in Germany whose work is part of basic biological, chemical and medical research.