Utilization of photocatalytic reactions for biological applications

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Photo-functional materials are useful in a variety of applications, such as devices converting light energy into electrical energy, optical sensor and filter etc. In our group, we develop photo-functional materials that convert light energy into chemical reaction energy which achieves decomposition of environmental pollutants and harmful microorganisms, and also production of valuable chemicals (solar chemicals) converting from common resources. By using the technologies based on photo-functional materials, we recently focus on developing environment maintenance and resource utilization technologies for living in space environment. Our group is promoting both basic and applied research that integrates knowledge of chemistry and biology using the photo-functional materials that can utilize light energy that is inexhaustible in the earth and space.

References

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