Converting the Chemical Industry into a Circular Economy

Lecture and Panel discussion

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Input Title
"Development of circulatable materials for a sustainable society"

Abstract
It is reported that "Novel Entities" represented by micro-plastic pollution have exceeded the planetary boundary.
We think that chemistry can play an essential role in solving these problems. Based on diverse biological and chemical findings, RIKEN Center for Sustainable Resource Science (RIKEN CSRS) has been promoting research for the creation and utilization of bioresources and chemical resources with less environmental impact by integrating plant science, chemical biology, catalytic chemistry, and biomass engineering. In this talk, I will introduce our studies on the development of circulatable materials based on catalytic chemistry, such as hydrogen production by water electrolysis and synthesis of functional polymers with self-healing capability under various environmental conditions, which may contribute to sustainable energy supply and efficient resource circulation.