

第509回触媒科学研究所コロキウム

Recent Advances and Research Trends in Organic Photovoltaics and the Omega-PV Module 有機太陽電池とOmega-PVモジュールの 最前線



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創成科学研究棟 4 階 セミナー室 B

Since the commercialization of OLED, organic semiconductors have attracted significant attention due to their ability to adjust various band gaps based on their molecular structure. In particular, flexible OPVs using organic semiconductor materials are gaining great interest as a potential urban window solar cell (BIPV) in the era of carbon neutrality. Recently, OPVs using Y6-type acceptor materials have achieved a Power Conversion Efficiency (PCE) of up to 20%, and research on device and module structures has been actively pursued.

This lecture introduces the development trends of flexible high-transmittance organic solar cells for window applications, focusing on advancements in molecular and device structures, as well as module technologies.

略歴

1993	Doctor's Degree, Dr. (Eng.): Tokyo Institute of Technology, Japan. Thesis Title: "Redox Reaction of Polyaniline and Synthesis of Polyarylamines and Related Polymers Catalyzed Iron and Copper Compounds" (supervisor: Takakazu Yamamoto).
2003～2025	Professor, Konkuk University,
2025～	Honorary Research Professor, Konkuk University,
2016～2028	President, College of Engineering, Konkuk University.
2018～	Academia Member, National Academy of Engineering of Korea.
2019	President, The Korean Society of Industrial and Engineering Chemistry (KSIEC).
2022～	Vice president, LBS Research Institute, KSIEC.
2024～	Inspector, Korea Union of Chemical Science and Technology Societies.

問合せ先: 長谷川 淳也

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