

# 第70回触媒化学融合研究センター講演会

産総研触媒化学融合研究センターでは、様々な分野で活躍している大学、公的研究機関、企業等の方々をお招きして講演会を開催することで分野の垣根を越えた連携の実現を目指しています。

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## Organic Semiconductors for Organic Photovoltaics and Their Application to Solar-To-Hydrogen Systems

Department of Chemistry Engineering, Konkuk University, Professor  
The Korean Society of Industrial and Engineering Chemistry, President

### Doo Kyung Moon



日時: 2019年7月8日(月) 16:00~17:00

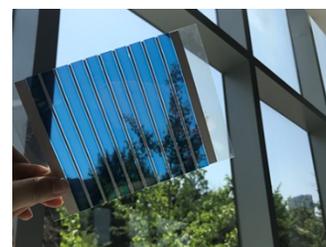
場所: 産総研第5事業所 第2本館 第4会議室(5-2 6603室)

#### <講演概要>

Organic semiconductors-based organic electronics have drawn immense attention owing to their advantages such as low cost, mechanical flexibility, lightweight, and transparency. Specifically, organic photovoltaics (OPVs) have achieved power conversion efficiency over 15% via a rapid development of various molecular design and device characterization. Although this progress has driven OPVs closer to commercialization, the challenges such as the high cost of raw materials and device fabrication still remain.

To overcome this, large-area OPV modules fabricated via low cost molecular design and coating process would be promising strategy for environmental friendly energy source. Furthermore, applying direct electrochemical solar-to-hydrogen (STH) systems, OPV modules significantly reduce the costs of solar to chemical energy conversion.

Here, we introduce the efficient molecular design and practical device fabrication for industrialization of OPVs and their possibility in application to STH systems.



【問い合わせ先】 触媒化学融合研究センター 担当: 白川 TEL: 029-861-2763

E-mail: irc3-kouenkai-ml@aist.go.jp HP: <http://irc3.aist.go.jp/>