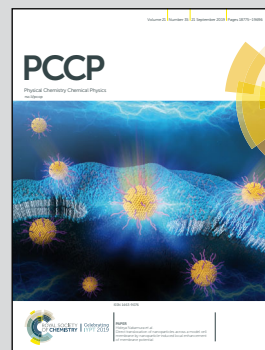


Showcasing research from Dr Keitaro Eguchi and the Laboratory of Prof. Kunio Awaga, Department of Chemistry, Nagoya University, Japan.

Ionic liquid thin layer-induced memory effects in organic field-effect transistors

This work presents a new method to produce a large hysteresis in the transfer characteristics of organic field-effect transistors (OFETs). We fabricated FETs of pentacene and fullerene with a thin layer of ionic liquid, and measured their performance *in situ*. Both the pentacene and fullerene FETs exhibited large hysteresis loops in p- and n-channel operation modes, respectively. The size of the hysteresis can be tuned by the thickness of the ionic liquid and it was maximized in the thickness range of 1.5–2.0 ML.

As featured in:



See Keitaro Eguchi, Kunio Awaga *et al.*, *Phys. Chem. Chem. Phys.*, 2019, 21, 18823.