

Oral Presentation

## [FLX3]Printed TFT Technologies

Chair: Hiroki Meada (Dai Nippon Printing Co., Ltd.)

Co-Chair: Takashi Nagase (Osaka Prefecture University)

Fri. Nov 29, 2019 9:00 AM - 10:15 AM Room 107 (1F)

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9:25 AM - 9:50 AM

## [FLX3-2(Invited)]Towards Ideal Printed Organic Transistors

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Keywords:Organic transistor, charge transport, printed electronics

Many organic thin-film transistors (OTFTs) exhibit non-ideal current-voltage characteristics that deviate from the ideal field-effect transistor or TFTs. The physical origins include the Schottky contact injection, strong localization of carriers, interfacial dipolar disorders, and etc. To this end, we have developed theoretical understandings and various optimization method to overcome the above problems. The resulting transistors exhibit almost ideal current-voltage behaviors, featuring the high mobility values reaching  $10 \text{ cm}^2/\text{Vs}$ .