

Fluorine-containing Diethynyl Aryl Derivatives for n-Channel Organic Field-effect Transistors

Kimiaki Kashiwagi,^{*1} Takeshi Yasuda,² and Tetsuo Tsutsui²

¹*Research Center, Asahi Glass Co., Ltd., Yokohama 221-8755*

²*Institute for Materials Chemistry and Engineering, and Graduate School of Engineering Sciences,
Kyushu University, Kasuga, Fukuoka 816-8580*

(Received June 19, 2007; CL-070658; E-mail: kimiaki-kashiwagi@agc.co.jp)

Fluorine-containing diethynyl aryl derivatives (**1–5**), in which three aromatic rings were connected together with rigid acetylenic linkages, were synthesized for n-channel organic field-effect transistors. The field-effect electron mobility of the thin film of **2** exhibited $3.4 \times 10^{-3} \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$.
