

Abstract Submitted
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The isolated large π systems in pyrene–fluorene derivatives observed with Scanning Tunneling Microscopy.¹ ZONGQIANG PANG, YUE ZHANG, ZHOU RONG, CHAO TANG, Nanjing University of Posts and Telecommunications — The isolated large π systems in pyrene-fluorene derivatives has been studied with Liquid Scanning Tunneling Microscopy (L-STM). From the Ultraviolet (UV) adsorption spectrum, we find that different pyrene-fluorene derivatives show substantial spectrum diversity. At ambient condition, we deposit different fluorene-pyrene derivatives on highly oriented pyrolytic graphite (HOPG) surface separately. From STM results, we observe the strong interaction between different functional groups and main conjugate chains. Our results helps to understand the mechanism of spectrum difference between different pyrene-fluorene derivatives, and guide us to develop more efficient blue light emitting materials in nodoped Organic Light Emitting Diodes (OLEDs) , which is important for the industry of information displays.

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