

# Design and synthesis of dithieno[3,2-b:2',3'-d]silole polymers with positioning phenyl groups for organic solar cells

Enwei Zhu,<sup>a,‡</sup> Guoping Luo,<sup>b,‡</sup> Yun Liu,<sup>a</sup> Jiangsheng Yu,<sup>a</sup> Fujun Zhang,<sup>c</sup> Guangbo Che,<sup>d</sup> Hongbin Wu,<sup>\*,b</sup> Weihua Tang<sup>\*,a</sup>

<sup>a</sup>Key Laboratory of Soft Chemistry and Functional Materials (Ministry of Education of China), Nanjing University of Science and Technology, Nanjing 210094, People's Republic of China

<sup>b</sup>Institute of Polymer Optoelectronic Materials and Devices, State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou, 510640, P. R. China

<sup>c</sup>Key Laboratory of Luminescence and Optical Information (Ministry of Education), Beijing Jiaotong University, Beijing 100044, China

<sup>d</sup>Key Laboratory of Preparation and Applications of Environmental Friendly Materials, Jilin Normal University, Siping, Jilin, 136000, People's Republic of China.

## Table of Contents

1. <sup>1</sup> H-NMR and <sup>13</sup> C-NMR spectra of monomers and polymer.....	S2
--	----

# <sup>1</sup>H-NMR and <sup>13</sup>C-NMR Spectra of monomers and polymer

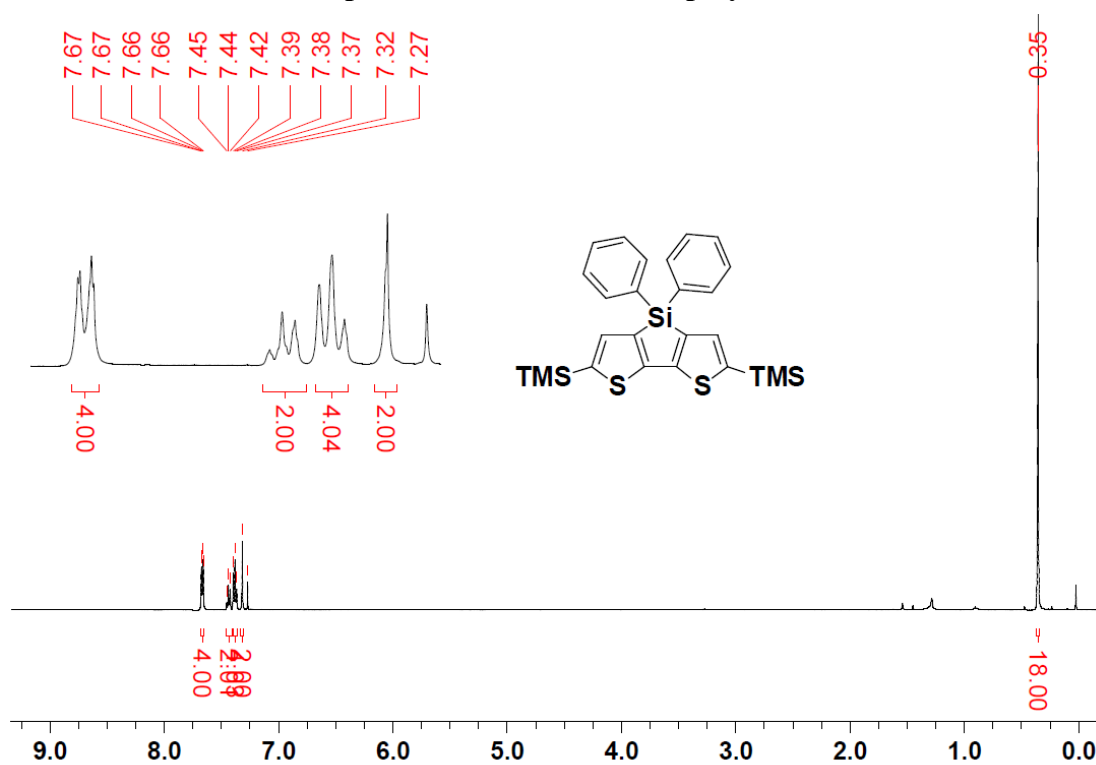


Figure S1. <sup>1</sup>H NMR spectrum of **2** in CDCl<sub>3</sub> solution

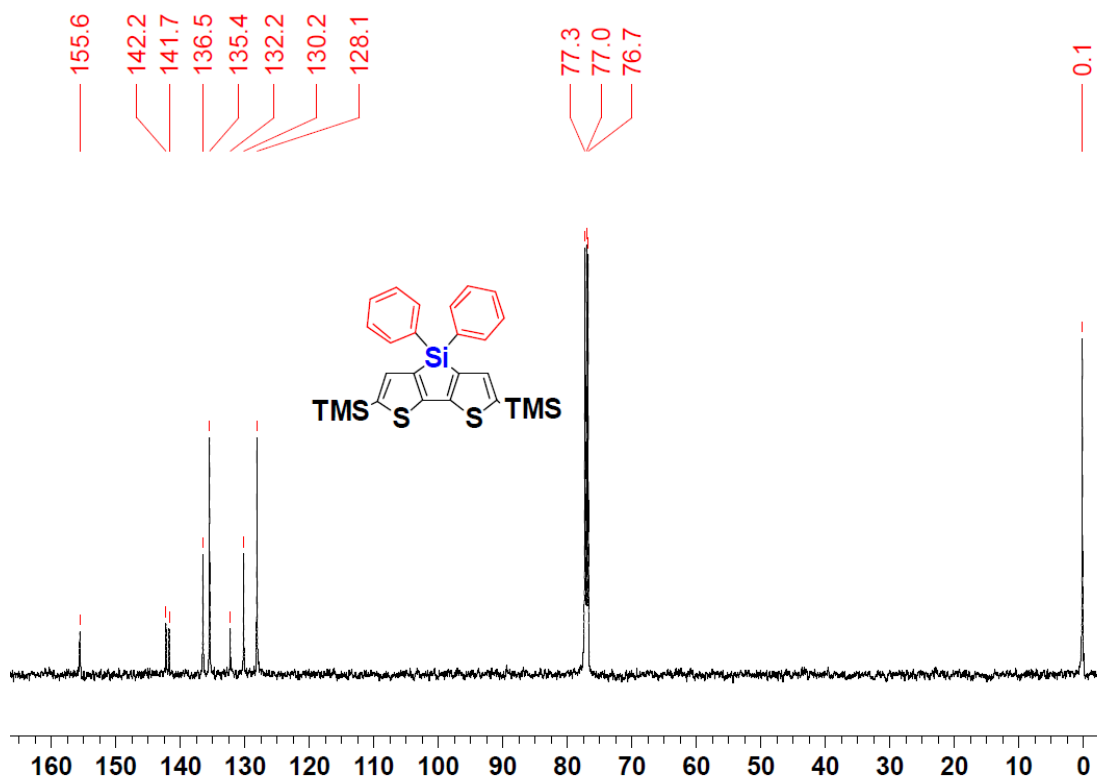


Figure S2. <sup>13</sup>C NMR spectrum of **2** in CDCl<sub>3</sub> solution

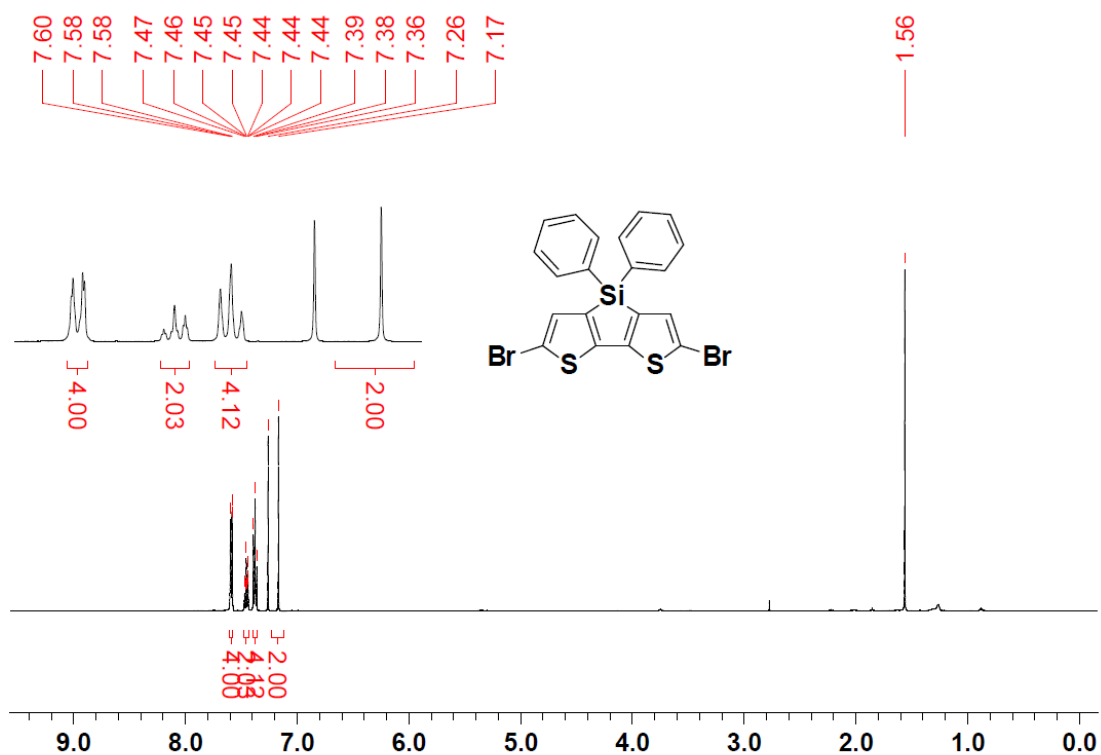


Figure S3. <sup>1</sup>H NMR spectrum of DTS-Ph in CDCl<sub>3</sub> solution

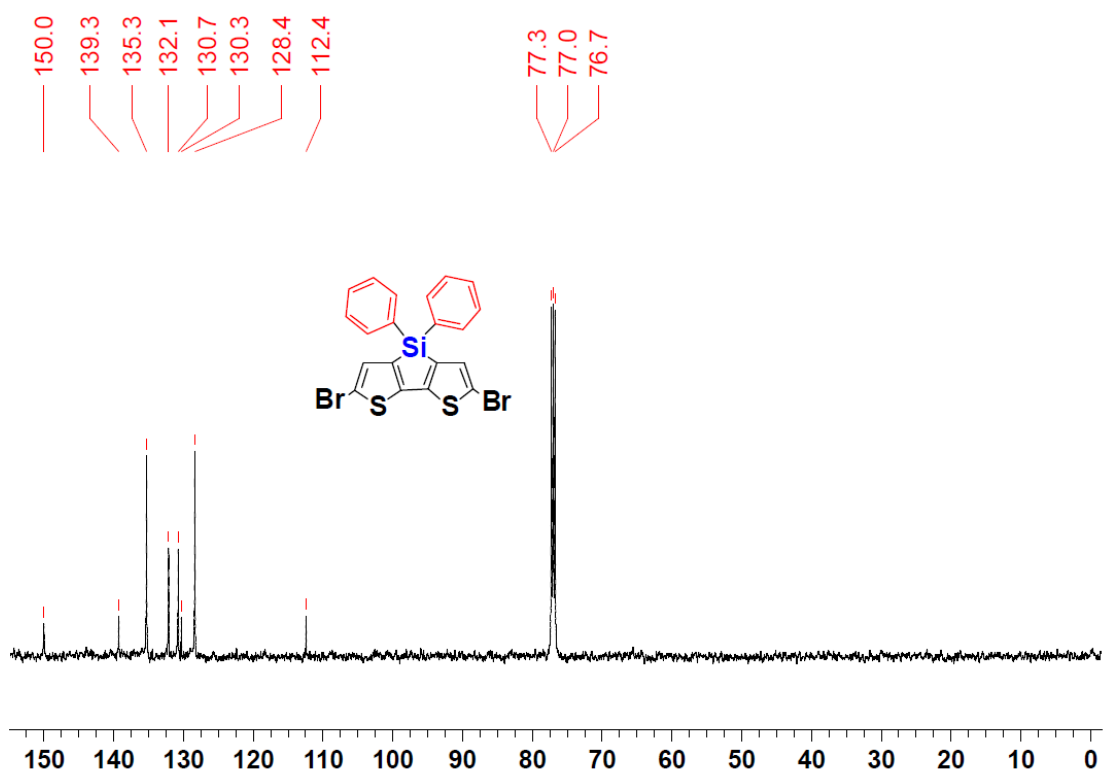


Figure S4. <sup>13</sup>C NMR spectrum of DTS-Ph in CDCl<sub>3</sub> solution

