

## **Supporting Information**

# **Synthesis and Evaluation of Coupler 4-Aryl-2-Aminothiophene-3-Carbonitrile and its Derivatives as Potential Coupling Component in Dye Synthesis**

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### Figure Captions

**Fig. S1. FT-IR spectrum for compound AI<sub>2</sub>**

**Fig. S2. FT-IR spectrum for compound, AI<sub>3</sub>**

**Fig. S3. FT-IR spectrum for compound, AI<sub>4</sub>**

**Fig. S4. FT-IR spectrum for compound, AI<sub>5</sub>**

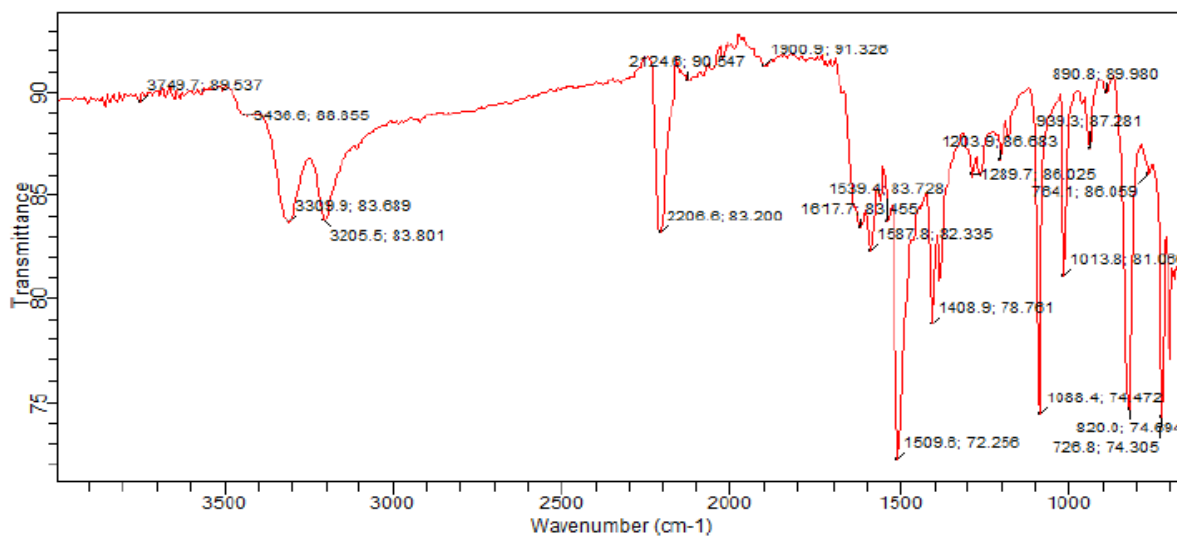
**Fig. S5. Mass spectrum of AI<sub>3</sub>**

**Fig. S6. Mass spectrum of AI<sub>6</sub>**

**Fig. S7. <sup>1</sup>H NMR spectrum of AI<sub>3</sub>**

**Fig. S8. <sup>13</sup>C NMR of AI<sub>2</sub>**

**Fig. S9. CNMR of AI<sub>3</sub>**



**Fig. S1:** FT-IR spectrum for compound Al<sub>2</sub>

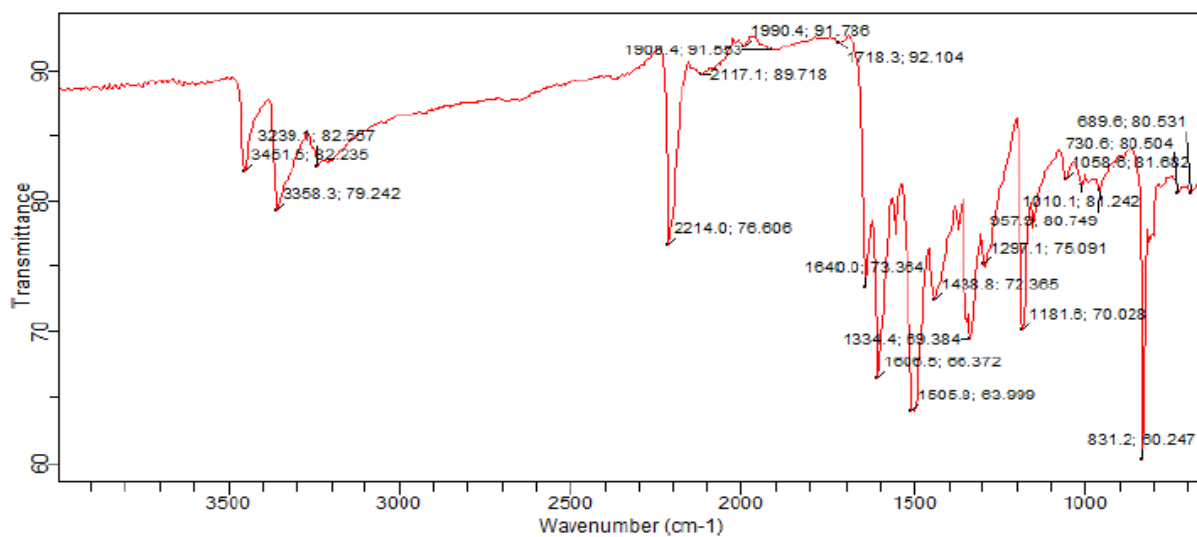


Fig. S2: FT-IR spectrum for compound, AI<sub>3</sub>

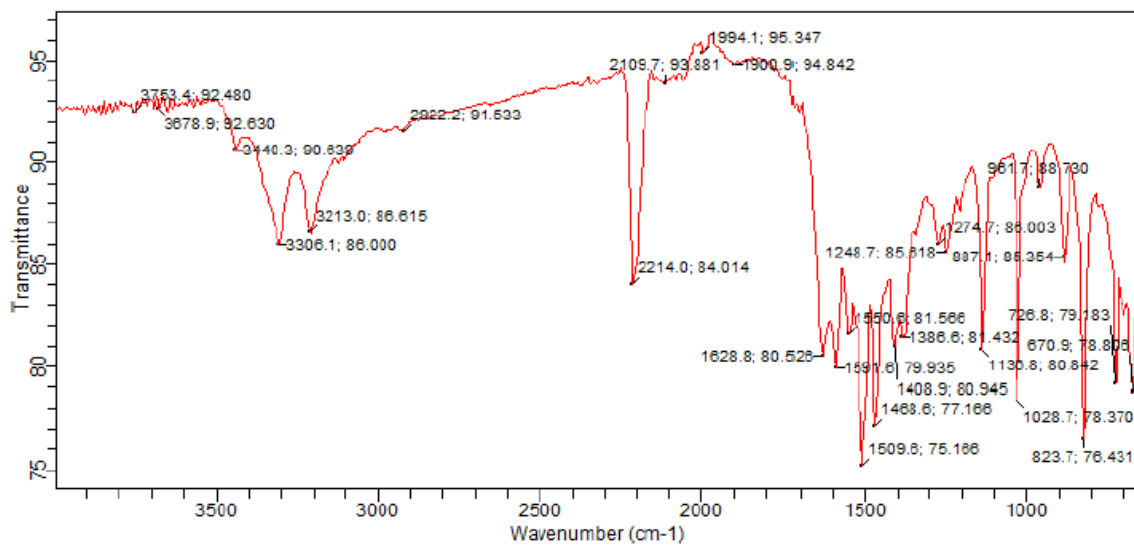


Fig. S3: FT-IR spectrum for compound, AI<sub>4</sub>

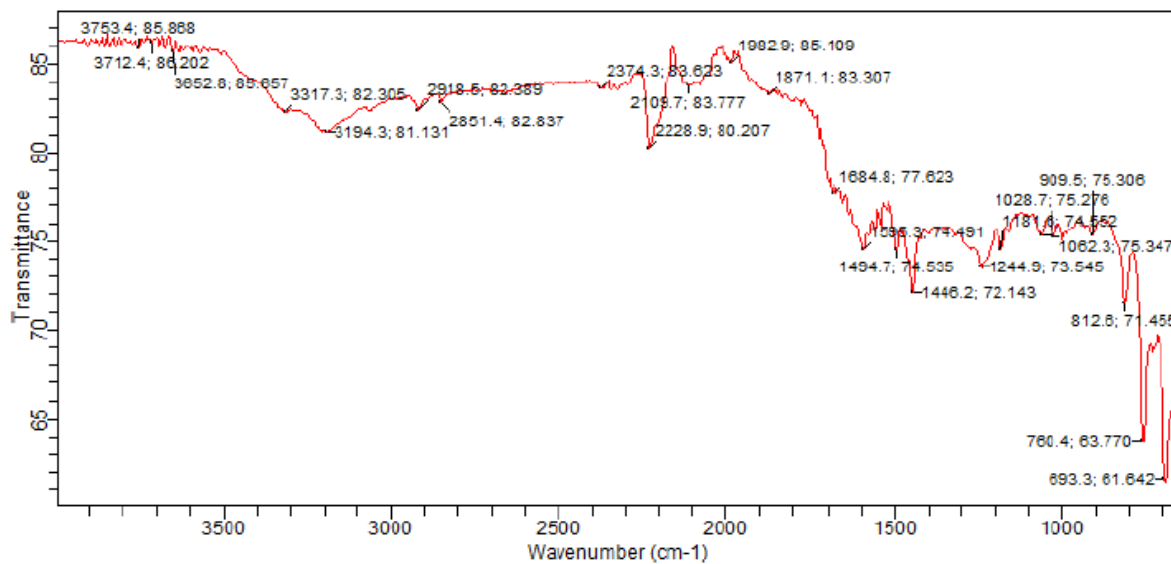
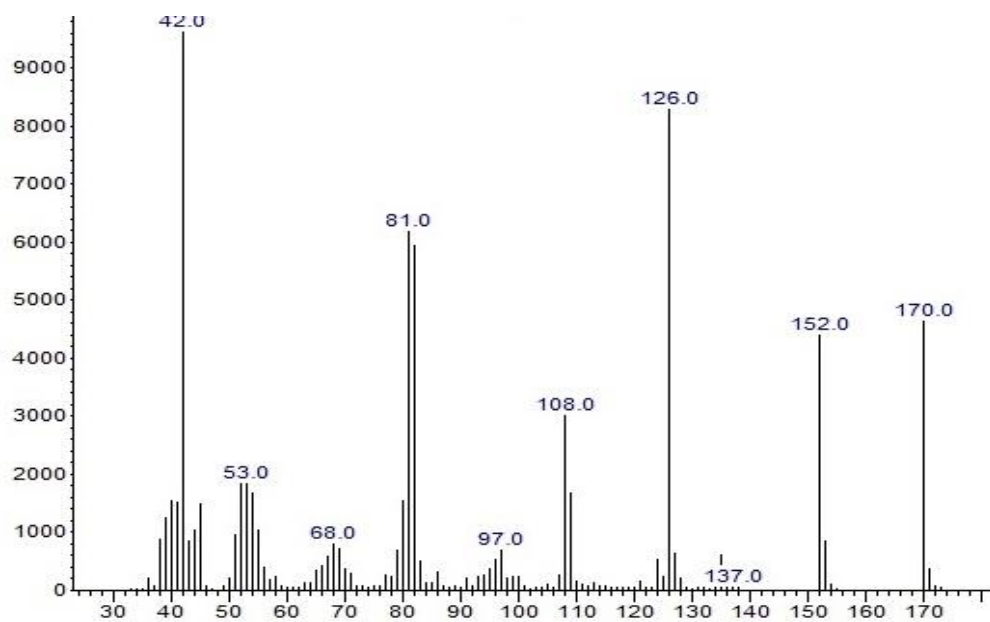
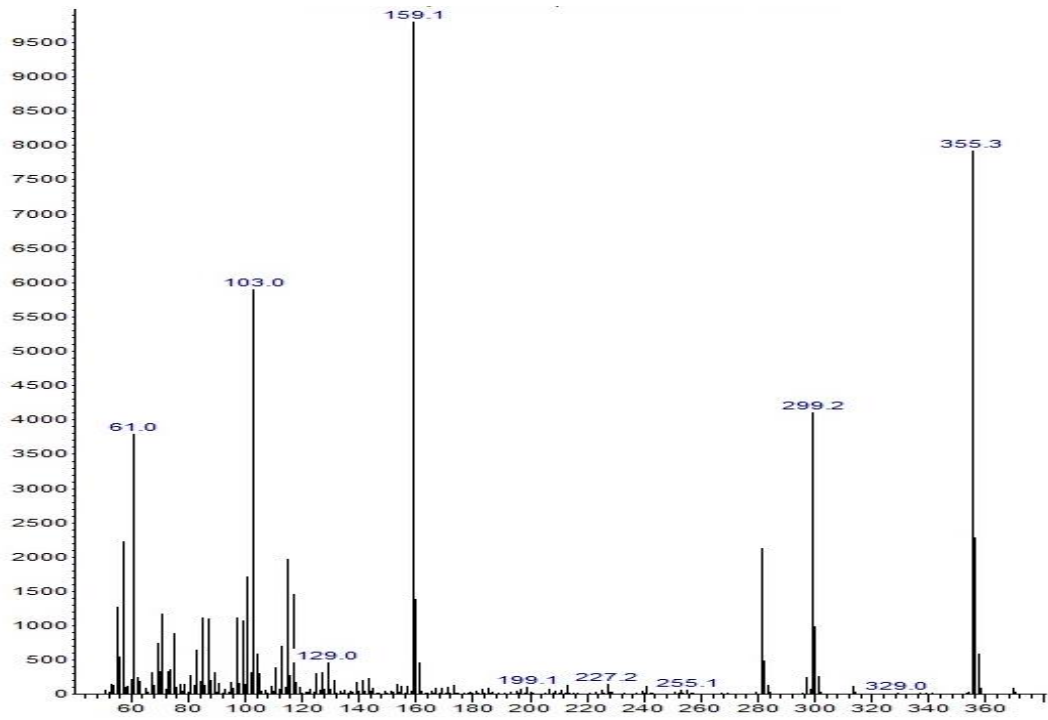


Fig. S4: FT-IR spectrum for compound, AI<sub>5</sub>



**Fig. S5.** Mass spectrum of  $\text{Al}_3$



**Fig. S6.** Mass spectrum of  $Al_6$ .



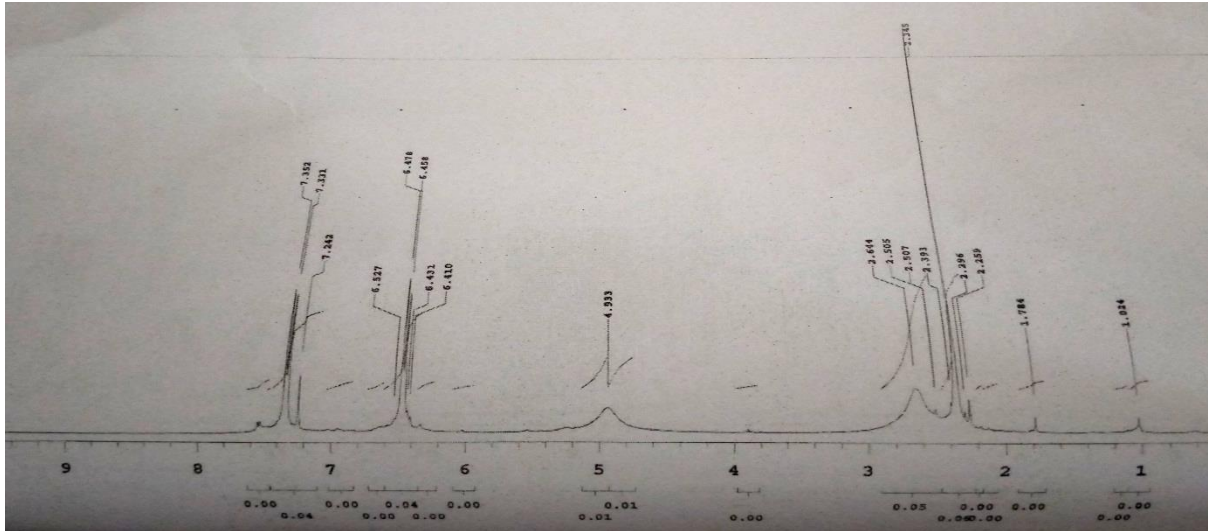


Fig. S7. <sup>1</sup>H NMR spectrum of Al<sub>3</sub>.

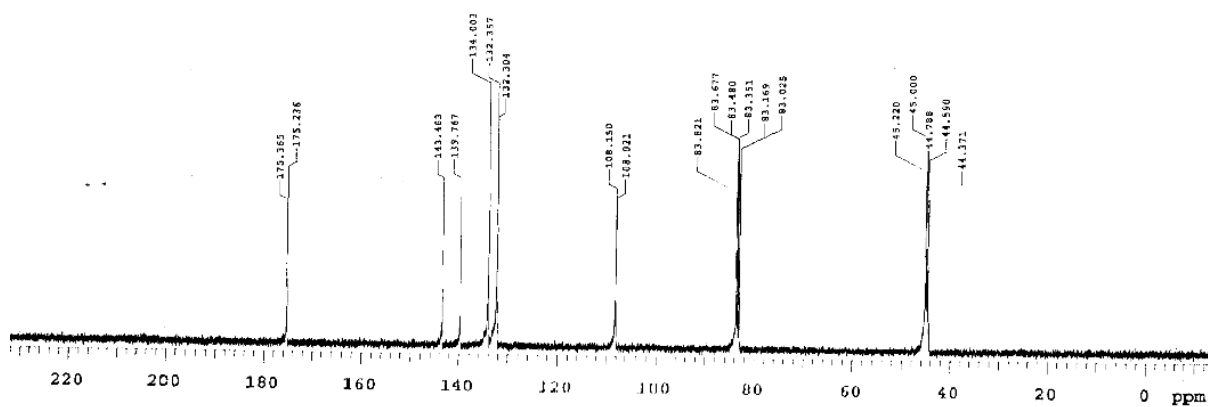


Fig. S8. <sup>13</sup>C NMR of Al<sub>2</sub>

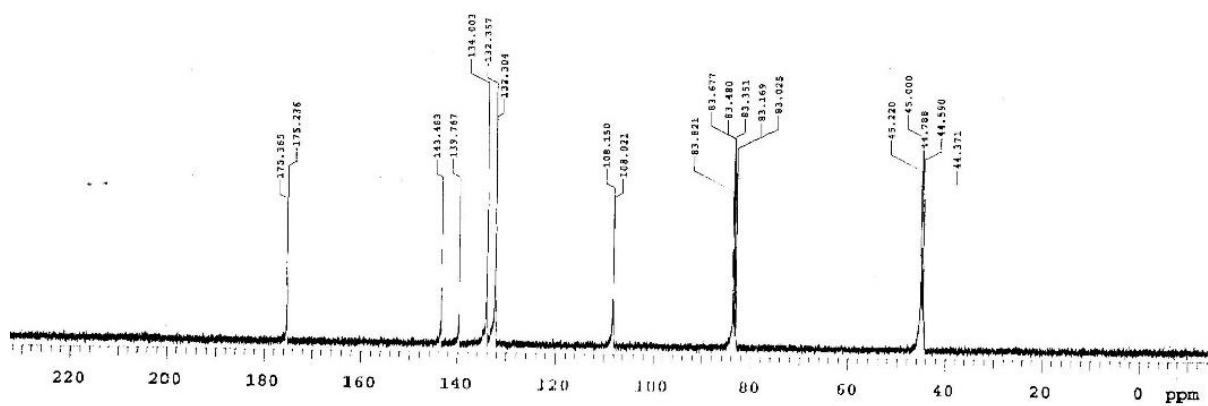


Fig. S9. CNMR of Al<sub>3</sub>