

## Cationic surfactant assisted synthesis of poly o-methoxy aniline (PoMA) hollow sphere and its self healing performance

T.Siva, S.Sathiyarayanan\*

### Supplementary information

#### 2.1 FTIR Spectroscopy

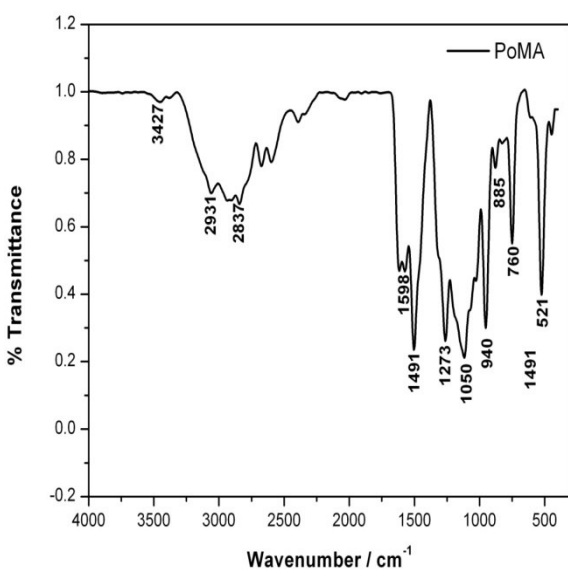


Figure S1 FTIR analysis of PoMA hollow sphere.

#### 2.2. XRD analysis

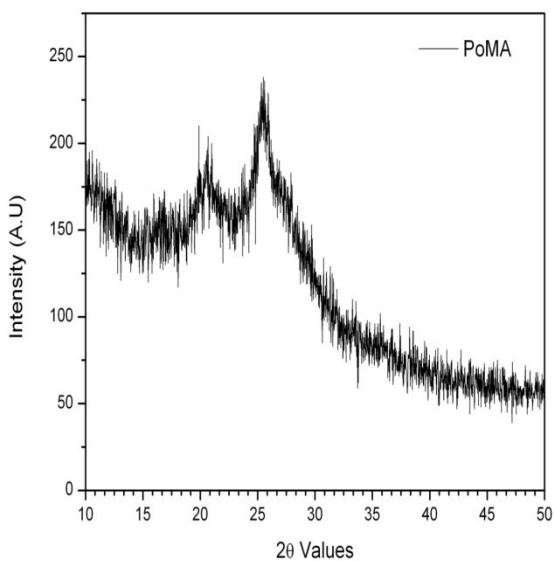


Figure S2 XRD analysis of PoMA hollow sphere.

### 2.3 UV-Vis Spectroscopy

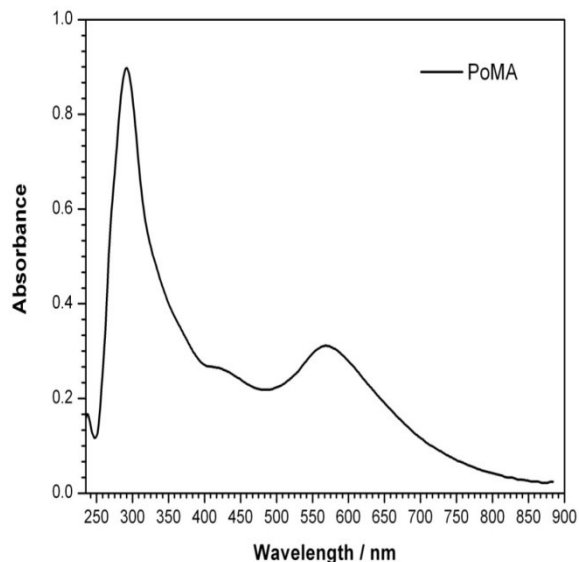


Figure S3 UV-Vis spectrum of PoMA hollow sphere.

### 2.4 TG analysis

The thermo gravimetric analysis of PoMA shown in Fig 6 has an initial 5% weight loss at temperatures below 104 °C due to the loss of moisture / free water from the polymer. Approximately 25% of weight loss at a temperature below 600 °C is interpreted due to the loss of dopant ion from the polymer matrix. The final stage is the polymer degradation which takes place above 600° C. The results show that the polymer is stable in air up to 640°C.

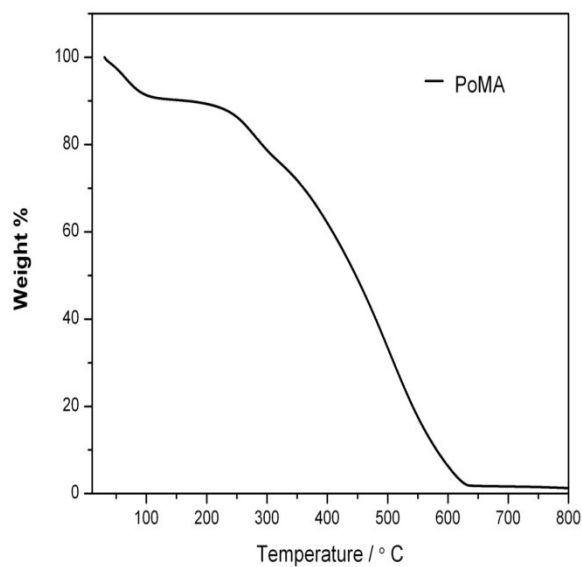


Figure S4 TG analysis of PoMA hollow sphere.