**Electromagnetic interference shielding properties of Pentacene thin film prepared by thermal evaporation**

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Pentacene attracts of attention as a important material used in organic thin-film transistors for many years. Also pentacene is known to have a ordered molecular structure. In the last decade pentacene has generally been studied as a transistor, but the effect of electromagnetic shielding has not been studied. In this study, electromagnetic interference shielding properties of pentacene will be investigated. Fort this the EMI properties of pentacene in the frequency range from 1 GHz to 20 GHz were studied. The obtained results revealed that pentacene organic semiconductor materials can be used as very effective, lightweight microwave shielding materials for spacecraft, aircraft, microelectronic and structural applications.



Fig.1. This molecule is pentacene, one of the first organic semiconductors.



Fig.2. Measured shielding effectiveness of the pentacene at microwave frequency.

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