

## RESEARCH TREND OF ELECTROMAGNETIC INTERFERENCE SHIELDING MATERIALS

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Recently, continuing improvement of the electronic and the information related industries such as communication and computer equipments, there are increasing the demand of high performance electronic equipments. Electromagnetic waves occur naturally in the environment and also produced by anything that carries or uses electric equipments. For examples, electromagnetic waves were produced by the power lines, electrical wiring, and electrical equipments. Since the 1980s, there have been epidemiological studies reported potential human health effects of electromagnetic fields exposure from the electronic devices. And also, this has led to an increasing the electromagnetic noise and malfunction between electronic equipments and to give the possibility of industrial accident. Electromagnetic interference (EMI) shielding materials have attracted much attention because of their practical application such as large area CRT, CPT and mobile telecommunication equipments against the emission and reception of electromagnetic waves. Recently, intrinsic electrical conducting polymers such as polyaniline, polypyrrole, polythiophene and their derivatives were used as an EMI shielding materials instead of conductive metallic compounds such as ATO, ITO and Ag. Conducting polymers have the various advantages such as low cost, processibility, control of the conductivity and long term stability compared to conductive metallic compounds. In the near future, the market size of the electrical conducting polymers as an EMI shielding materials will be rapidly increased. The research trend of EMI shielding materials will be discussed.