

# **CuPc: Effects of Doping and a Study of Its Organic-Semiconducting Properties for Application in Flexible Devices**

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**Resumen.** Este estudio refiere al dopaje de semiconductores orgánicos por medio de una simple reacción entre ftalocianina de cobre y tetratiafulvaleno o tetracianoquinodimetano. Las películas semiconductoras de ftalocianina de cobre, dopadas con donante de tetratiafulvaleno (CuPc-TTF) y aceptador tetracianoquinodimetano (CuPc-TCNQ) en distintos sustratos, fueron preparadas por evaporación en vacío. La estructura y morfología de las películas semiconductoras fueron estudiadas con espectroscopía infrarroja (IR), difracción de rayos X (XRD), y microscopía electrónica de barrido (SEM).

**Abstract.** This study refers to the doping of organic semiconductors through a simple reaction between copper phthalocyanine and tetrathiafulvalene or tetracyanoquinodimethane. The

semiconductor films of copper phthalocyanine, doped with tetrathiafulvalene donor (CuPc-TTF) and tetracyanoquinodimethane acceptor (CuPc-TCNQ) on different substrates, were prepared by vacuum evaporation. The structure and morphology of the semiconductor films were studied with infrared (IR) spectroscopy, X-ray diffraction (XRD), and scanning electron microscopy (SEM).

### **Referencia bibliográfica.**

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