

Influence of the molecular structure on the interface formation between magnesium and organic semiconductors

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### **Abstract**

The interface formation between three different perylene derivatives and Mg were investigated by high-resolution soft X-ray photoemission spectroscopy using synchrotron radiation at BESSY. The chemical and electronic properties of these interfaces were obtained after fitting the C<sub>1s</sub>, O<sub>1s</sub>, N<sub>1s</sub> and Mg<sub>2p</sub> core-level emission spectra as a function of Mg thickness. A strong chemical interaction between Mg and the molecular end groups is observed leading to the formation of new chemical components and/or charge redistribution due to the presence of the metal. © 2006 Elsevier Ltd. All rights reserved.

### **Author Keywords**

Interfaces; Metal contacts; Organic semiconductors