

## Optical characterization of plasma-treated and alumina-coated PMMA

Jae-In Yu, Kyung-Hak Lee, Jae-Gon Yun

Advanced Material Team of Tae Yang Electronics Company

Polymer materials coated with thin metallic, ceramic or oxide films are widely used in many domains such as microelectronics, optics, thermal protection, medicine, food packaging, etc. We focus our attention on poly (methyl-methacrylate) polymer (PMMA) coated with aluminum oxide, elaborated by *in-line sputtering*. The present study is entirely devoted to an optical analysis(XPS, Reflectance) of the surface of as received and plasma (argon) treated PMMA and the interface between PMMA and alumina thin films.