

## **Characterization of transparent hydrophobic coating with silica and graphene oxide fillers by sol-gel method**

### **ABSTRACT**

Transparent hydrophobic coating was prepared by using the sol-gel method. Two different roughness agents namely silica and graphene oxide, GO were used in this study. Surface contact angle, transmittance degree, IR spectroscopy and surface morphology were characterized for each sample. All samples show good transparency which was confirmed by UV visible spectroscopy. The hydrophobicity obtained for GO-containing sample is more significant as compared to silica-containing sample indicating that GO is the better candidate to be used as a hydrophobic coating in optically transparent applications such as solar cells, optical lenses and windows.

**Keyword:** Transparent hydrophobic coating; Sol-gel method; Silica; Graphene oxide