
Contribution ID: **180** Type: **Oral Presentation**

# Quantification of Ag in Ag doped glass based metamaterials using XPS analysis.

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Quantification in XPS is not easy, more especially if the concentrations of the substituents in the sample are not homogeneous on the sample surface or with depth. In this study the Quases-Tougaard Software analyses approach was used to quantify Ag nano clusters in a Ag doped glass host. The specimens were synthesized by a simple molten bath ion exchange method and then annealed at different temperatures. A XPS-spectrum of the Ag 3d peaks were isolated from a survey spectrum of the specimen and compared to a spectrum generated from a pure Ag reference. The morphology was changed until there was a good match between the two spectra. The results shows that the QUASES Software can be a vital tool in determining the morphology of elements in a sample.These results are then compared with results from TEM data.

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