



Contribution ID: 149

Type: **Poster Presentation**

The annealing effects on Pt-Mo coating morphology

Wednesday, 13 July 2011 17:00 (2 hours)

The study of annealing effects on platinum binary systems has both the fundamental and applied aspects. It is due to the fact that the formation of ordered domains increases the strength and surface hardness and could also have an impact on surface activity and chemical properties. The changes of mechanical, physical and chemical properties caused by annealing could be of significant importance for application of platinum systems as catalysis, gas sensors, fuel cells, glass industry, electronics and biomedicine. The Pt-Mo coatings used in this study were deposited by electron beam and sputtering methods. In order to study annealing effects the Pt-Mo coated systems were subjected to heat treatment at elevated temperatures for different annealing periods. Several complimentary techniques such as X-ray Diffraction (XRD), Rutherford Backscattering Spectroscopy (RBS), Particle Induced X-ray Emission (PIXE), and Scanning Electron Microscopy (SEM) were used for coatings characterisation.

**Level (Hons, MSc,
 PhD, other)?**

MSc

**Consider for a student
 award (Yes / No)?**

No

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

No

Primary author: Mr KHUMALO, Zakhelumu (ithemba LABS)

Presenter: Mr KHUMALO, Zakhelumu (ithemba LABS)

Session Classification: Poster1

Track Classification: Track A - Condensed Matter Physics and Material Science