

# 4<sup>th</sup> International Conference and Exhibition on **Materials Science & Engineering** September 14-16, 2015 Orlando, USA

## **Anti-corrosive material coating based on PMMA/ montmorillonite (MMT)**

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Nowadays, the major problem of oil industries is related to the internal corrosion and the deposit formation in pipelines used in transportation around the world. In order to extend the useful life of this equipment, the development of new research related to anti-corrosion coating is necessary. Thus, polymer-clay nano-composites were obtained using montmorillonite (MMT) and the Poly Methyl Methacrylate (PMMA) as organic phase. This product can be used as adhesive and as coating (paints and varnishes) with high corrosion resistance properties and can be applied on the metal structures of oil industries. The organophilization was performed with a quaternary salt known as 'Dodigen'. The used clay was the reagent grade Brasgel. The developed coating presented effective barrier properties, hindering the penetration of corrosive agents toward metallic substrates.

### **Biography**

Ariosvaldo A B Sobrinho received his PhD in Polymer Chemistry in 1998 at the University Pierre et Marie Curie (Paris VI). He has been appointed as an Associate Professor at the Federal University of Campina Grande - PB/Brazil in 1991, and he develops research activities at Department of Materials Engineering. From 1998 to 2011, he has conducted research in partnership with the Network of North and Northeast Asphalt, Penalty and Network of Nanotechnology and Molecular Interfaces near to Campina Grande, where he has contributed to the development of specialty polymers.

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