

## **Atomically Thin Lubricant, Anticorrosion and Superhydrophobic Layers Based on Graphene**

### **Disclosure Number**

201202903

### **Technology Summary**

This invention relates to materials and more specifically to the use of Graphene for several useful purposes. Graphene is a low energy material and an excellent candidate for use as a layer to reduce surface friction, corrosion and tailor the surface superhydrophobic properties. Because of the native low surface energy of Graphene it exhibits hydrophobic behavior. Modifying the surface energy using surface treatments can alter the hydrophobic properties of Graphene. Graphene coatings can function as a barrier to aqueous corrosion thereby providing enhanced corrosion resistance.

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