

## Ti, Ti Alloy - Carbon Composites for Capacitive Water Purification

### **Disclosure Number**

201002361

### **Technology Summary**

The present invention disclosure is related to use of Ti and Ti-alloy powders in generation of composite materials for new possible markets, including unique porous parts, such as electrodes with high electrical conductivity and useable pores provided by activated carbon additions. In this application T or Ti alloy powders act as a binder for high surface area carbon powders, which can bond salt materials present in water. This Ti – carbon composite will as an electrode structure for a variety of applications, including capacitive deionization processes for removal of ions in treating water. The invention can further include the application of making custom low cost Ti electrodes starting with the powder metallurgy process.

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