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(54) **NANOCOMPOSITE OF GRAPHENE AND METAL OXIDE MATERIALS**

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CPC ***H01M 4/366*** (2013.01); *Y10T 29/49* (2015.01); *Y10T 428/27* (2015.01);
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CPC H01M 4/366; H01M 4/587; H01M 4/485; H01M 4/364; H01M 10/0525; H01M 2010/4292; H01M 2004/021; Y02E 60/122; B82Y 30/00; Y10T 428/24997; Y10T 428/30; Y10T 428/268; Y10T 428/27; Y10T 29/49
USPC 429/231.5
See application file for complete search history.

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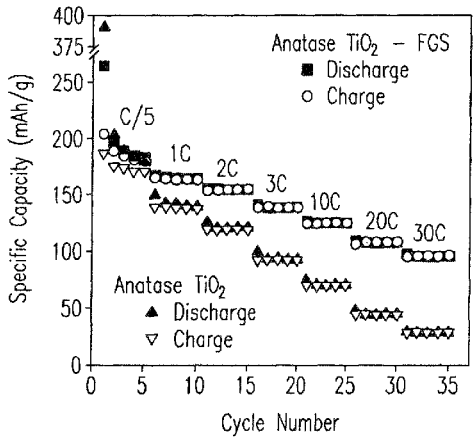
(57) **ABSTRACT**

Nanocomposite materials comprising a metal oxide bonded to at least one graphene material. The nanocomposite materials exhibit a specific capacity of at least twice that of the metal oxide material without the graphene at a charge/discharge rate greater than about 10 C.

15 Claims, 12 Drawing Sheets