

High Capacity Monolithic Composite Si/Carbon Fiber Electrode Architectures

Disclosure Number

201303023

Technology Summary

We demonstrate a low cost, energy dense electrode composed of LCF+Si. Si has been a sought after anode material for years due to its high capacity 3800 mAh/g in comparison to battery grade graphite 350 mAh/g. Si however does not cycle reversibly due to very large volume expansion associated with intercalation and the lack of a stable SEI layer. Our invention addresses both of these issues with a low cost material and manufacturing solution.

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