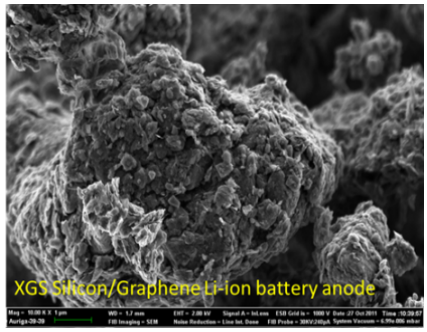
Technical Data Sheet

XG-SiG™ Energy Storage Materials
Silicon-Graphene Li-ion battery anode

High Energy Anode – XG Sciences' *AN-S-100* delivers high specific capacity in an xGnP® graphene-stabilized silicon anode material for enhanced run-time portable electronics. Our proprietary manufacturing process coats silicon particles with highly conductive, flexible graphene platelets establishing a network that provides silicon with robust mechanical support and high rate capacity.



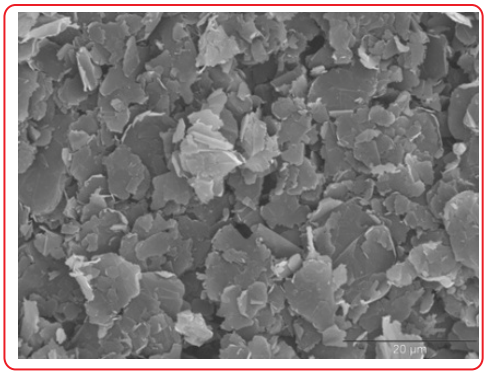
AN-S-100 Si-graphene anode properties	
Reversible capacity	800 mAh/g
1st cycle efficiency	80 %
Charge/discharge rate	C/2
Discharge temperature	30 deg C
Recommended binder	Polyacrylic acid (PAA)

General characteristics

- Composition: Silicon graphene
- Morphology: Porous aggregates
- High reversible capacity
- Efficient Li+ storage
- Enhanced cycle life

xGnP® Graphene - Conductive additive

xGnP® graphene nanoplatelets are short stacks of graphene sheets in a platelet shape. Typical platelet electrical conductivity parallel to the surface is 10^7 S/m.



xGnP® Graphene bulk properties	
Appearance	Black granules
Bulk density	0.1 g/cc
Carbon Content	>99.5%
Oxygen content	< 1 %

XG sciences
THE MATERIAL DIFFERENCE