

**Magnis Resources**  
L I M I T E D

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## Magnis Technology Produces Globally Superior Battery Results

- Blended natural graphite with silicon composite anode material stores 80% more energy than graphite without sacrificing laminate density
- High performance natural graphite and composite silicon achieves high first cycle charge capacity achieved at 623 mAh/g with >89% first cycle efficiency.
- Battery testing with patented BM-LMP cathode technology verifies leading performance without the use of cobalt or nickel
- Cathode technology gains major interest from established battery industry leaders and major organisations looking to enter the sector.
- Discussions with anode suppliers and OEM's qualifying cells are well progressed

Magnis Resources Limited ["Magnis" or the "Company"] (ASX: MNS) and exclusive partner, Charge CCCV ["C4V"] are pleased to advise that joint testing programs on the commencement of lithium-ion battery manufacturing are well advanced. To date, Magnis and C4V have made significant progress in qualifying patented next generation materials for leading battery performance and commercial supply chain partners.

### Anode Materials

Recent test programs utilising silicon enhanced graphite anode materials have delivered major advances in both anode performance and the cost of its manufacture. In particular, the patented nanostructure silicon composite material can now be manufactured at a significantly lower equivalent cost to graphite after allowance for its increased capacity.

Supply chain qualification for commercial integration benefits include:

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- First cycle lithiation capacity of 623+ mAh/g, a 80% improvement on the energy density performance of existing graphite-based anode material;
- A first cycle efficiency of >89% without any pre-lithiation;
- Greater than 98% capacity retention after 35 cycles

In general terms, 80% more capacity translates to approximately 30% more distance covered by a vehicle using a similar battery pack size, when compared by dimensions. For example, an average Tesla battery has a range of approximately 450km and the results achieved here would allow the same size battery pack to achieve 600km.

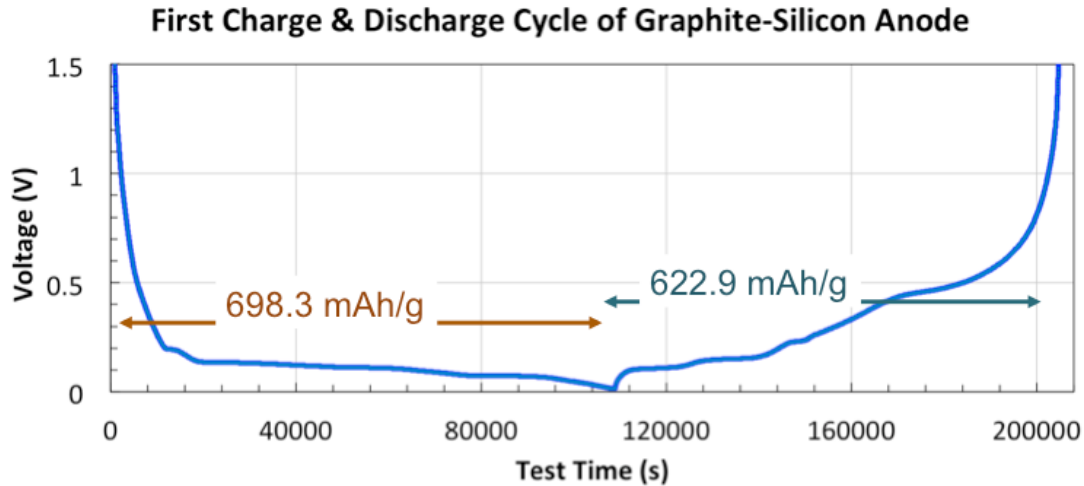


Figure 1 : First cycle of Li-ion coin cell made with Nachu graphite and composite silicon.

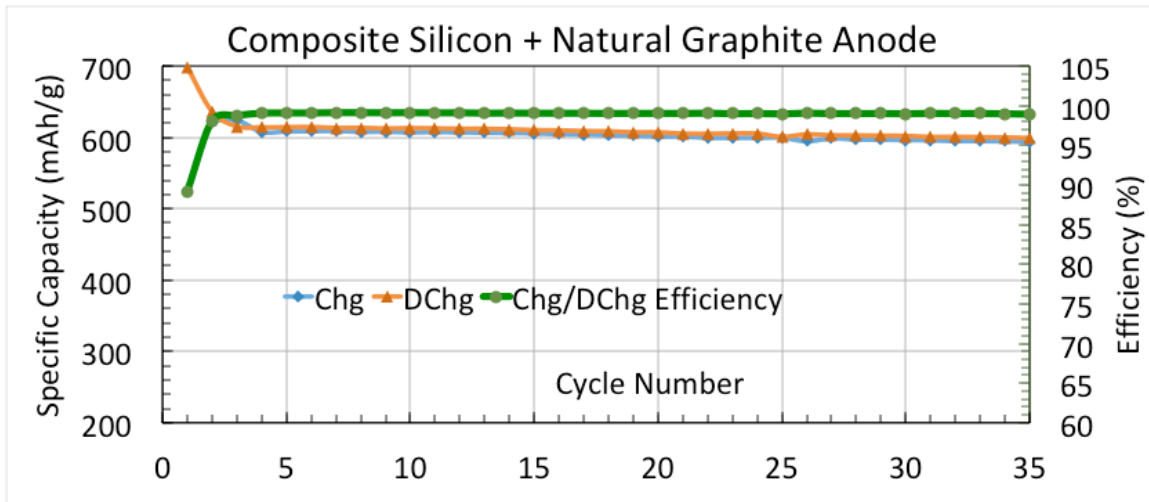


Figure 2 : Cycling data of Nachu graphite and composite silicon anode

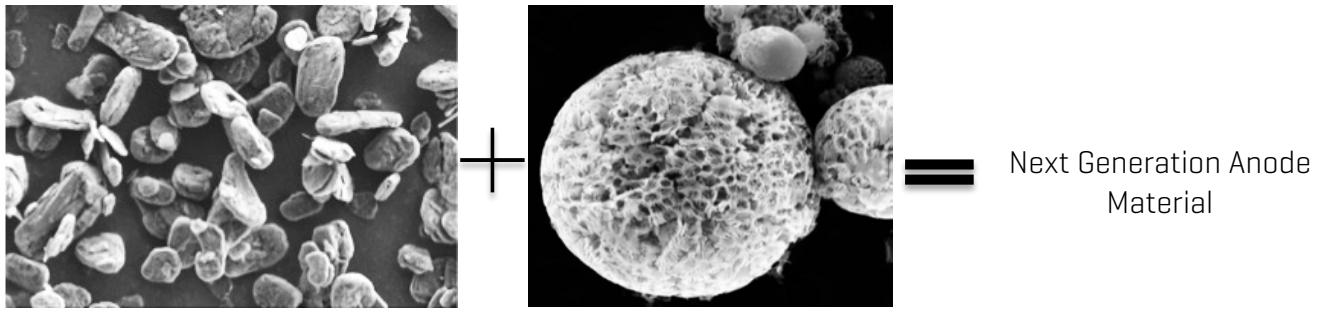


Figure 3 : Scanning Electron Micrographs of Natural Graphite and Composite Silicon: a commercially viable approach for next generation high performance batteries.

## Anode Suppliers and Original Equipment Manufacturers (OEMs)

The Company has received significant levels of interest from leading anode suppliers for the silicon graphite anode blend. Samples and results are currently being shared with these parties.

OEM qualification has also begun with battery cells being recently sent to OEM's in the United States. Larger volumes of samples are being prepared for delivery and will be sent to European OEM's later this quarter.

Discussions to date have been promising and the Company expects to reach an agreement before the end of the calendar year.



Figure 4 : Several 2170 cells undergoing performance and supply chain qualification process.

## Cathode Technology

Magnis and C4V Generation 1 and Generation 2 cathode technologies have received interest from groups within the battery industry and potential new entrants to date. Generation 1 cathodes, which will be ready for mass production in the near term, do not require any cobalt or nickel and have much higher capacity than phosphate [such as LFP] or oxides [such as NMC, NCA, LMO]. Generation 1 cathode BM-LMP has been tested on commercial size [several Ah] cylindrical as well as pouch form factors. Generation 2 is targeted towards higher energy density (~300Wh/kg) and higher temperature stability [no cooling until 65°C]. Testing for Generation 2 remains ongoing and the Company will provide an update to shareholders as developments materialise.

## Management Commentary

Magnis Chairman Frank Poullas said: “The results we have achieved in our initial testing phase are very exciting and testament to Magnis and its partner C4V.

“To have developed a product with such superiority in a truly competitive space, leaves Magnis well positioned as the world pushes towards the broader use of lithium-ion batteries.

“The Company remains in high level discussions with strategic partners and large automakers and is confident that an agreement will be reached this calendar year.

“Board and management look forward to updating shareholders as further developments materialise.”

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