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Nanostructured magnesium silicide  $Mg_2Si$  and its electrochemical performance as an anode of a lithium ion battery

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PII: S0925-8388(17)31757-7

DOI: [10.1016/j.jallcom.2017.05.163](https://doi.org/10.1016/j.jallcom.2017.05.163)

Reference: JALCOM 41893

To appear in: *Journal of Alloys and Compounds*

Received Date: 15 March 2017

Revised Date: 12 May 2017

Accepted Date: 15 May 2017

Please cite this article as: N.S. Nazer, R.V. Denys, H.F. Andersen, L. Arnberg, V.A. Yartys, Nanostructured magnesium silicide  $Mg_2Si$  and its electrochemical performance as an anode of a lithium ion battery, *Journal of Alloys and Compounds* (2017), doi: 10.1016/j.jallcom.2017.05.163.

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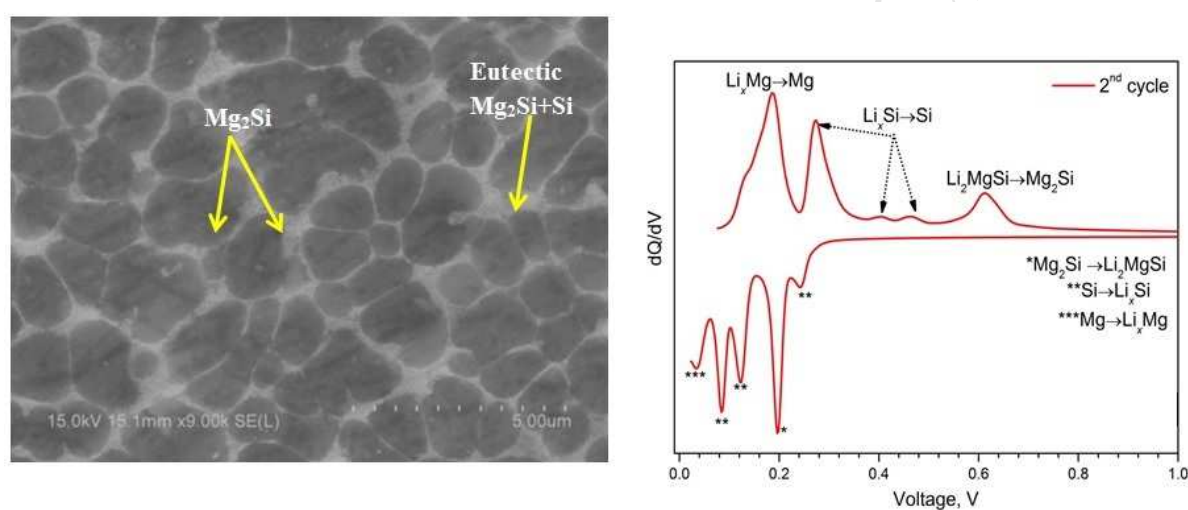


## GRAPHICAL ABSTRACT

### NANOSTRUCTURED MAGNESIUM SILICIDE $Mg_2Si$ AND ITS ELECTROCHEMICAL PERFORMANCE AS AN ANODE OF A LITHIUM ION BATTERY

by

Nazia S. Nazer, Roman V. Denys, Hanne F. Andersen,  
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Electrochemical performance of Mg-Si alloys used as anodes of the lithium ion battery significantly improves when the eutectic alloy  $Mg_2Si+Si$  is subjected to the Rapid Solidification leading to its nanostructuring and in presence of additives to the electrolyte allowing to form a stable SEI layer.

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