

2 November 2018

Australian Mines takes lead on scandium R&D for next generation of battery storage technology

HIGHLIGHTS:

- Research partnership with Amrita Centre for Research and Development's Centre of Excellence in Advanced Materials and Green Technologies
- Evaluating potential of high-capacity scandium-magnesium ternary alloys for next generation nickel metal hydride batteries and hydrogen storage applications
- Confirms Australian Mines as leader in scandium research and follows previously announced partnership with UK-based Metalysis for R&D on solid-state process to produce aluminium-scandium alloy

Australian Mines Limited ("Australian Mines" or "the Company") (Australia ASX: *AUZ*; USA OTCQB: *AMSLF*; Frankfurt Stock Exchange: *MJH*) is pleased to announce its second major scandium research partnership, having agreed to collaborate with leading academic researchers at the *Amrita Centre for Research and Development* on work being conducted around the use of scandium in the next generation metal hydride batteries and hydrogen storage applications.

Australian Mines will collaborate with the *Centre of Excellence in Advanced Materials and Green Technologies*, a cutting-edge research facility operated jointly by Amrita Centre for Research and Development and Amrita Vishwa Vidyapeetham - being a broader multi-disciplinary institution, which has emerged as one of the fastest growing institutions of higher learning in India.

The Centre is based out of Tamil Nadu and is assessing the potential for scandium-magnesium alloys as a new class of high-capacity ternary alloys to improve the energy storage capacity in the next generation of nickel metal hydride batteries for application in the burgeoning global electric vehicle market.

In addition to potential applications for scandium-magnesium alloys in mainstream passenger vehicles, the research collaboration is also assessing the potential for this new class of metal hydride batteries to be used for storage of hydrogen to provide a practical solution to the increasing demand for technologies that can effectively store large amounts of hydrogen¹ for higher energy use applications in heavy transport².

The agreement with the Amrita Centre follows Australian Mines' previously announced partnership with UK-based Metalysis³ for research and development on an innovative solid-state process to more efficiently produce aluminium-scandium alloys for use in the automotive manufacturing sector.

Australian Mines' Managing Director, Benjamin Bell, commented: *"Our partnership with the Amrita Centre has the potential to make a significant contribution to the scandium-magnesium alloys being considered as a high-performance alternative for the next generation of nickel metal hydride batteries."*

"We also recognise the emerging economics around hydrogen as an alternative energy source to fossil fuels and believe metal hydride batteries could provide a storage solution for hydrogen, as they can be handled without extensive safety precautions, which is especially relevant when considering applications like hybrid and electric-powered trucks and heavy-haulage vehicles."

"Under the research agreement, Australian Mines will retain all intellectual property rights generated through the collaboration, regardless of where and by whom the relevant IP is created – potentially providing lasting value to the Company's shareholders from the future commercialisation of the applications subject to the research and development partnership."

"Australian Mines remains committed to delivering additional revenue from the Sconi Cobalt-Nickel-Scandium Project in Queensland through marketing the high-purity scandium oxide, which can be produced at minimal additional cost to the proposed cobalt sulphate and nickel sulphate operation".

*****ENDS*****

¹ Schlapbach and Züttel, Nature 414 (2001)

² Niessen and Notten, Electrochemical and Solid-State Letters 8 (2005)

³ Australian Mines Limited, AUZ enters research partnership to develop scandium alloy, released 12 June 2018

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