9 JANUARY 2022

ASX:FYI I OTCQX:FYIRF

OUTSTANDING RESULT FOR ENHANCED FYI HPA ANODE COATING

- **Program successfully produced coated spherical graphite and FYI enhanced HPA-doped coated spherical graphite that has met the technical specifications required by leading battery manufacturers**
- **Electrochemical performance of the FYI enhanced HPA-doped coated anode in lithium-ion coin cells has achieved higher first charge capacity, reduced first cycle loss and increased battery charge efficiency which has outperformed industry standard material**
- **Independent evaluation process commenced with partners and battery manufacturers on product samples produced**
- **Significant value proposition and market opportunity in US and Europe with demand expected to grow 30%pa with sales prices reported by BMI for coated anode ranges between US$5,000 and US$10,000 per tonne with premium HPA coated anode commanding higher prices.**

FYI Resources Ltd **("FYI" or "the Company") (**ASX:**FYI;** OTCQX:**FYIRF;** FSE:**SDL)**, is pleased to announce with EcoGraf Ltd (ASX:EGR) the significant results of its enhanced high purity alumina (HPA) anode coatings development program.

The advanced technical program is being undertaken in a leading US commercial battery material research facility using EcoGraf™ HFfree spherical graphite (hdBAM) and FYI's innovative ultrafine 4N HPA to generate HPA-doped coated spherical graphite.

To determine initial performance of the developed anode, the negative electrode is incorporated into CR2016 coin cells for electrochemical performance and cycling tests, which reflects pouch and cylindrical battery technologies that are used to power electric vehicles (EV's).

The program commenced with surface coating EcoGraf spherical graphite with carbon material via a proprietary impregnation technique and heat treatment process to produce carbon coated spherical graphite as a product. This material was then surface doped with a fine dispersion spray of FYI's ultrafine 4N HPA to produce an enhanced HPA-doped carbon coated spherical graphite product.

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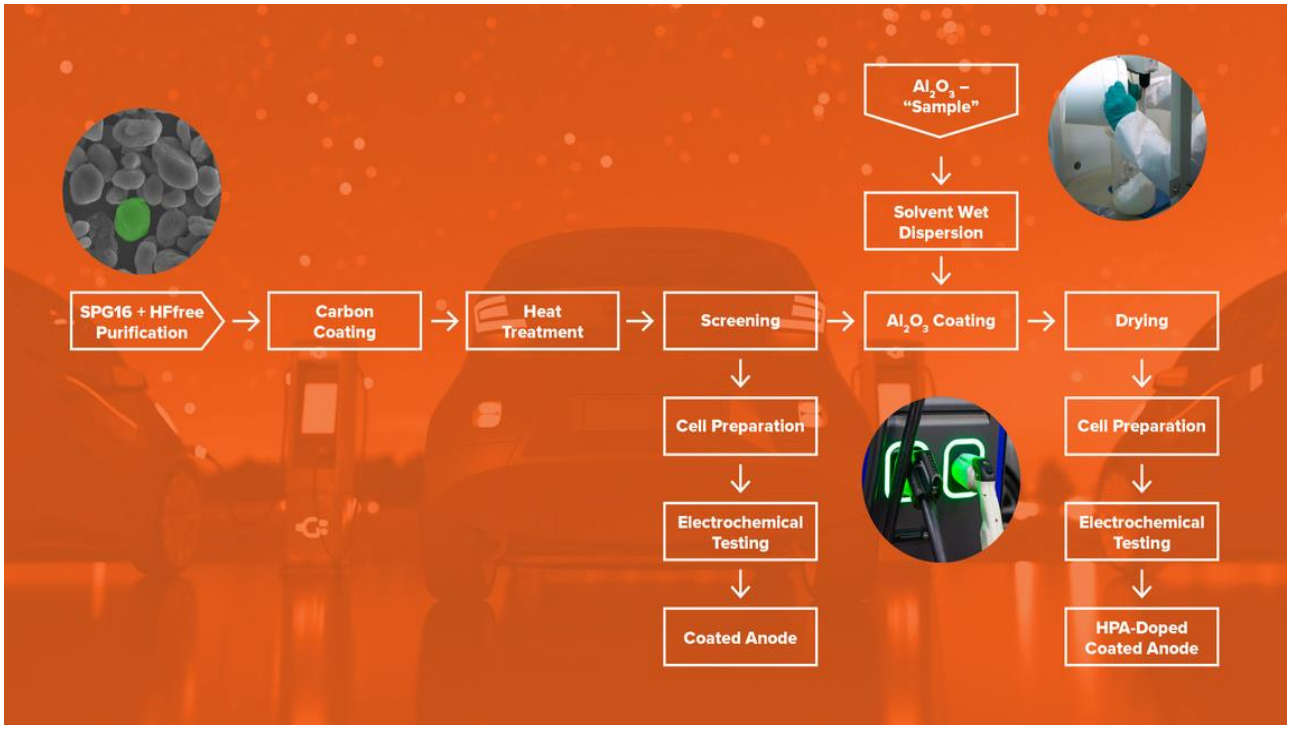
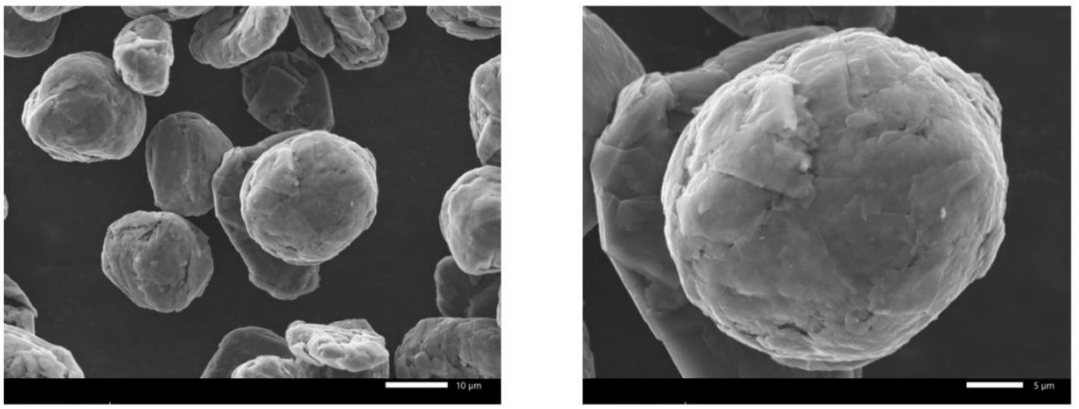
The process flowsheet for the FYI HPA anode coating program is outlined below.

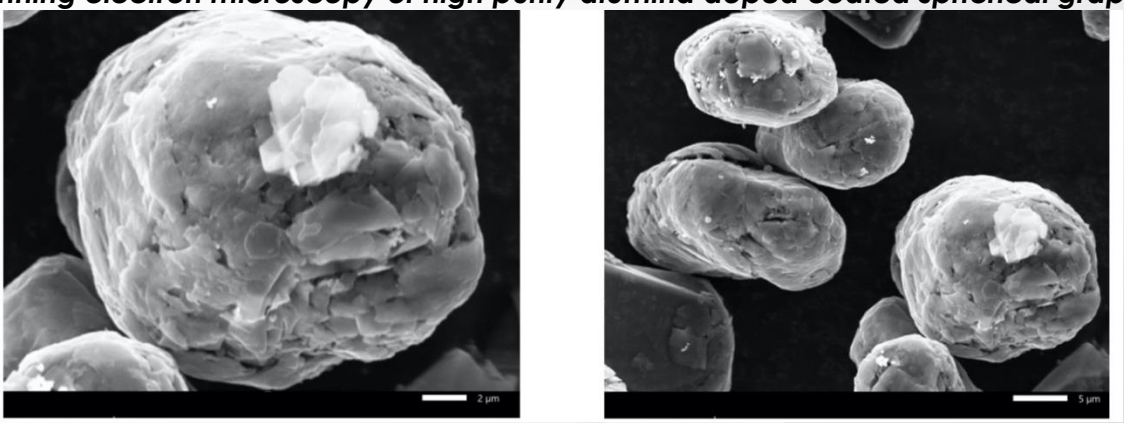


Physical analysis of the coated spherical graphite material and FYI HPA-doped coated spherical graphite material was completed and met the specifications required by leading battery manufacturers.

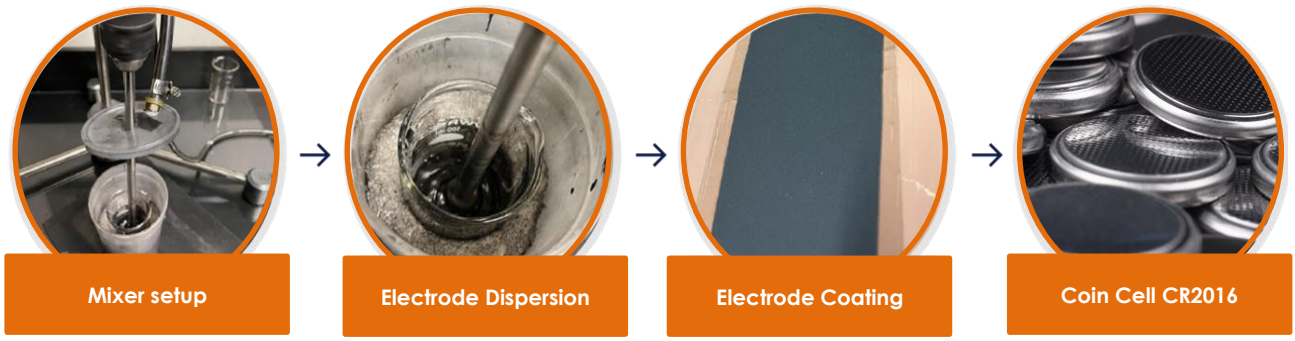
Scanning electron microscopy of carbon-coated purified spherical graphite



Scanning electron microscopy of high purity alumina doped coated spherical graphite



The electrode coating process involved the electrode dispersion under controlled conditions and applied to the copper sheet to achieve uniform electrode coating.



Electrochemical performance of the coated spherical graphite (coated anode) and FYI HPA-doped coated spherical graphite HPA-doped coated anode) was undertaken in an industry standard lithium-ion coin cell (CR2016).

The following table presents the lithium-ion coin cell electrochemical performance results benchmarked against current industry anode material from China.

	Coated Anode	FYI HPA-Doped Coated Anode	Industry Market Anode
Reversible capacity (mAh/g)	353.4	**362.7**	355
First cycle loss (%)	5.2%	**4.5%**	7.0%
First Charge efficiency (%)	94.8%	**95.5%**	93.0%

First cycle charge-discharge curves were developed for both materials achieving higher first charge capacity, reduced first cycle loss and increased charge efficiency.

The coated anode has a reversible capacity in the order of 353.4 mAh/g with irreversible first cycle loss amounting to merely 5.2% These are excellent results and makes the FYI and EcoGraf coated anode as superior performing Lithium-ion anode material.

The performance of the FYI HPA-doped coated anode was outstanding and better than the coated anode. Specifically, the reversible capacity was measured at 362.7 mAh/g and the first cycle loss was 4.5%. The HPA-doped coated spherical graphite outperformed current industry standard industry material.

Optimisation will continue for the loading of FYI HPA onto the battery anode as well as variable size specification of HPA used as the dopant. Performing the long-term cycling (100 cycles and above) of the FYI HPA-doped coated anode is ongoing.

The results are very positive delivering a better performing material that will improve, performance, durability, and safety.

FYI and EcoGraf are very pleased with the results and providing product samples to partners and battery manufacturers. The objective program is to develop a commercial innovative active anode material (AAM) in Western Australia from further value adding its materials for the Lithium-Ion battery market.

The value opportunity is compelling as BMI reports premium, coated anode sells between US$5,000 and US$10,000/tonne.

FYI Managing Director, Roland Hill, commenting on the HPA coated anode trial results said "The initial FYI coated anode testwork results are outstanding and demonstrate the potential of further development on this project. We are particularly encouraged by the out-performance of our developed anode technology In relation to the current market leader. With our partner Ecograf, we will continue the development of this exciting technology and its growing application into the e-mobility sector".

This announcement is authorised for release by Roland Hill, Managing Director

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About FYI Resources Limited

FYI's is positioning itself to be a significant producer of 4N and 5N HPA in the rapidly developing high-tech product markets.

FYI applies both an ESG and economic overlay of the Company and its operations to ensure long-term sustainable and shareholder value is created via the development of the Company's innovative, high quality, ultra-pure HPA project.

HPA is increasingly becoming the primary sought-after input material for certain high-tech products principally for its unique properties, characteristics and chemical properties that address those applications high specification requirements such as LED's and other sapphire glass products.

The longer-term driver for HPA, with forecasts of >17% CAGR*, is the outlook for the burgeoning electric vehicle and static energy storage markets where the primary function is in the use as a separator material between the anode and cathode in batteries to increase power, functionality and safety of the battery cells.

The foundation of the HPA strategy the Company's moderate temperature, atmospheric pressure innovative process flowsheet. The strategy's quality attributes combine resulting in world class HPA project potential.

** CRU HPA Industry Report 2021*