ZEN Graphene Solutions Reports a 324% Increase in Anode Discharge Capacity in Preliminary Battery Testing Results

written by Raj Shah | April 11, 2019

April 11, 2019 (Source) – **ZEN Graphene Solutions Ltd.** (TSXV: ZEN) ("**ZEN**" or the "**Company**") and its research partners, Deutsches Zentrum fur Luft- und Raumfahrt, The German Aerospace Center ("DLR") and Kal Tire are pleased to report on their preliminary battery development results at the University of British Columbia, Okanagan Campus, performed by Dr. Lukas Bichler and his team. Initial results showed that the addition of 5% ZEN reduced Graphene Oxide (rGO) into Carbon Black derived from recycled tires from Kal Tire resulted in a 324% increase in the anode discharge capacity in comparison to the current industry standard anode material, SUPER P Carbon powder, which is used in numerous battery applications as a conductive additive.

Dr. Francis Dubé, "This environmentally friendly process utilizes recycled used tires and produces Carbon Black which is potentially suitable for use as an Anode material in rechargeable batteries. This could potentially decrease the cost of anode material, which is currently the highest cost component of these batteries. These are excellent preliminary research results and ZEN will continue to work with Dr. Bichler and his team along with DLR and Kal Tire to optimize these results."

Follow-up research will now focus on optimizing these

preliminary results to produce a new environmentally friendly, lower cost and higher capacity anode material. The Carbon Black material derived from the Kal Tire tires yielded an anode material with an energy discharge capacity of 115 milliampere hours per gram (mAh/g), the same as industry standard carbon, Super P. The addition of 5% rGO from ZEN to the Carbon Black anode material increased the capacity from 115 mAh/g to 488 mAh/g while a battery consisting of 100% rGO had a capacity of 840 mAh/g. These results were presented during a 2 day summit at UBC-O. Future opportunities in next generation batteries and other applications were discussed between the 3 industrial partners along with the potential for strong collaborations between the Canadian and European partners. The collaboration also focuses on international exchange of students and research scientists to rapidly develop these new battery anode materials.

About ZEN Graphene Solutions Ltd.

ZEN Graphene is an emerging graphene technology company with a focus on the development of the unique Albany graphite project. This precursor graphene material provides the company with a competitive advantage in the potential graphene market as independent labs in Japan, the United Kingdom, Israel, the United States and Canada have demonstrated that ZEN's Albany graphite/Naturally Pure easily converts (exfoliates) to graphene, using a variety of simple mechanical and chemical methods.

To find out more on ZEN Graphene Solutions Ltd., please visit our website at www.ZENGraphene.com. A copy of this news release and all material documents in respect of the Company may be obtained on ZEN's SEDAR profile at www.sedar.ca.

Forward Looking Statements

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