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**Exceptional Structural Durability of NEO Battery’s 100% Silicon Anodes for Next-
Generation Flexible Battery Applications**

Vancouver, British Columbia – May 11, 2021 – Dr. Jong Hyeok Park, Director and Chair of Scientific Advisory Board of NEO Battery Materials Ltd. (TSXV: NBM) (“**NEO**” or the “**Company**”), is pleased to announce that NEO’s silicon (Si) anode succeeded to achieve exceptional flexibility and durability from a continuous bending test.

A 3.5 x 9.5 cm² sized pouch flexible battery cell with multi-electrodes stack was assembled at an industrial facility to investigate mechanical durability against bending fatigue. After undergoing 30,000 bending cycles (bending radius: 25 mm), conventional Si anodes showed serious cracks and deformation, as some fragments had been detached from the copper (Cu) foil. However, there were no perceptible degradation in the NEO’s Si anodes after the same bending test, displaying the required robustness to effectively counter the volume expansion problem.

Flexible batteries are being recognized as a forefront technology in the rise of next-generation, rechargeable batteries. An integration of a flexibility characteristic allows the lithium-ion battery (LIBs) to be safe and lightweight, retain a higher rate capability, and possess a greater energy and power density compared to current rigid LIBs.

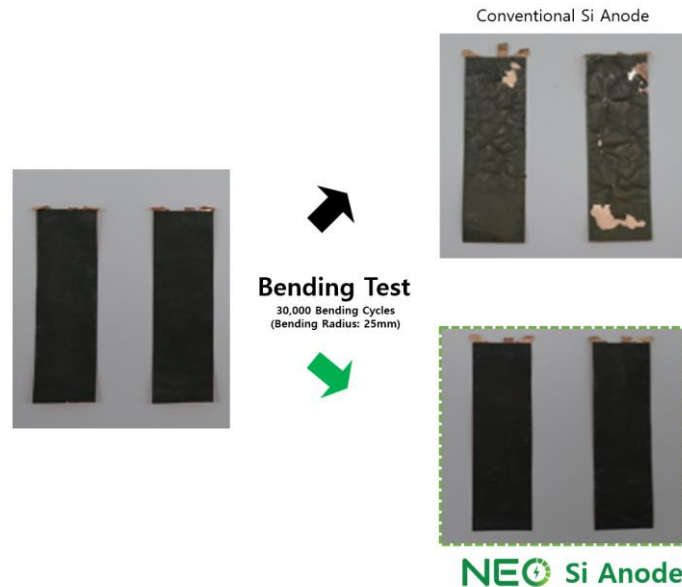


Figure showing NEO Battery’s Silicon Anode compared to a conventional silicon anode after undergoing a bending test of 30,000 cycles in a pouch flexible battery cell, presenting excellent structural durability in flexible battery applications

“Our patented elastomer nanocoating layer with an adhesive nature shows excellent stability in flexible battery applications, and NEO Battery Materials will further develop Si anodes for various kinds of next-generation Li-ion batteries including bendable, foldable, and stretchable Li-ion batteries,” said Dr. Park.

About NEO Battery Materials Ltd.

NEO Battery Materials Ltd. is a Vancouver-based junior resource company focused on battery metals exploration in North America. The Company has staked new mining claims in Golden, BC, along a strike with a quartzite bed, targeting silica in the quartzites for a total of 467 hectares. The Company focuses on exploring and producing silicon, which, when added to anode materials in the production of lithium-ion batteries, provides improvements in capacity and efficiency over lithium-ion batteries using graphite in their anode materials. The Company intends to become an integrated silicon producer and anode materials supplier to the electric vehicle industry. For more information, please visit the Company's website at: <https://www.neobatterymaterials.com/>.

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