

3DIcon to Enter Battery Energy Storage Market

TULSA, OK -- (Marketwired) -- 09/22/16 --[3DIcon Corporation](#) ("3DIcon") (OTC PINK: TDCP), which is scheduled to close on its acquisition of Coretec Industries LLC this month, announced that, through Coretec and its silicon materials technologies, it will commence the commercialization of Coretec's proprietary high value liquid silicon precursor, cyclohexasilane, Si_6H_{12} ("CHS"), for use within the growing battery energy storage market.

Lithium-ion (Li-ion) batteries are rechargeable batteries commonly used in portable electronics where weight, size and time between charging are critical. The [global market](#) for Li-ion batteries is witnessing a significant growth owing to their increasing use in smartphones, tablets/PCs, digital cameras, and power tools and is estimated to be \$46.2 billion dollars by 2022. Additionally, the demand for Li-ion batteries in the automobile industry is increasing as electric vehicles enter the market in greater volume.

A key challenge remaining for the broader adoption of Li-ion batteries is a need for further improvements in the amount of energy stored combined with the number of times the battery can be recharged before it must be replaced. Under current practice the capacity of Li-ion batteries is being enhanced by adding silicon while advances in improving the lifetime continue to be made by varying how the silicon is added. Currently in these cases, monosilane (SiH_4) gas is commonly used as the starting material.

Coretec has licensed technology for the manufacture of CHS and derivatives of CHS. Our strategy is to replace monosilane gas with CHS in these applications. A significant competitive advantage of CHS is that it is a liquid at room temperature and not explosive, making it easier and safer to handle than monosilane gas. CHS can also be converted into silicon directly from a liquid or gas, allowing greater flexibility in processing. We have shown that CHS can be easily converted into films, nanoparticles and nanofibers, all of which have been considered for use in Li-ion batteries.

We are nearing completion of our initial joint development agreement ("JDA") with a manufacturer of (pilot scale) material, which we expect to result in revenues soon after that agreement is in place. In addition, other discussions are taking place with possible JDA partners in overseas markets, primarily for larger quantities of material for the lithium-ion battery market.

"We see great potential within the lithium ion battery energy storage markets because of the versatility of our CHS materials. We believe we can go beyond the traditional approaches for adding silicon to Li-ion batteries by affordable conversion of CHS and its derivatives into nanoparticles or nanowires, giving us multiple solutions for battery energy storage improvement," said Doug Freitag, VP of Technology and Business Development of 3DIcon.

The CHS technology was [recently featured in AltEnergyMag](#), an industry publication focusing on alternative energy innovations within solar, wind, and energy storage. Freitag took part in an executive Q&A where he discussed the potential of Silicon materials in lithium ion batteries to increase capacity and enhance battery life at a favorable cost relative to current alternatives. It was also recently featured by [Fox23 in Tulsa](#), highlighting the Company as one working to revolutionize the battery industry.

About 3DIcon Corporation

3DIcon Corporation (the "Company", "3DIcon", "we", "us" or "our") is a developer of technologies for emerging markets, including its patented volumetric 3D display technology, CSpace®. Upon the scheduled closing of our acquisition of Coretec Industries, LLC later this month, we will utilize Coretec's portfolio of silicon-based materials to pursue commercial development in energy-focused verticals such as energy storage, solar, and solid-state lighting, as well as printable electronics and 3D displays. For more information please visit www.3dicon.net.

Media contact:

Matthew Bretzius

matt@fischtankpr.com

FischTank Marketing and PR

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