3M and Umicore Expand Their Nickel, Manganese and Cobalt Cathode Materials Relationship

ST. PAUL, Minn.--(BUSINESS WIRE)--3M and Umicore have entered into a second technology license agreement that further expands the use of nickel, manganese and cobalt (NMC) cathode materials in lithium-ion batteries. Under the agreement, 3M grants Umicore license to a family of low cobalt NMC cathode material compositions for manufacture and sales to lithium-ion battery manufacturers for automotive and consumer electronics applications.

The battery cathode compositions composed of nickel, manganese, and cobalt, covered by this agreement, offer an outstanding balance of power, energy, thermal stability and low cost. NMC cathode materials can meet demanding customer requirements ranging from high-energy handheld consumer electronics to high-power (hybrid) electric vehicles. For large format battery applications the excellent thermal stability of NMC cathode compositions contributes to improved battery safety performance thereby, enabling a lower total battery system cost.

“We are very pleased to strengthen our successful technology collaboration with 3M. This license allows Umicore to further expand its wide product offering. The product performance combined with an intrinsic lower cost will pave the way for advanced NMC cathode materials in the emerging applications for lithium-ion batteries in the automotive market as well as further penetrate the established consumer electronics market,” said Kurt Vandeputte, business line manager, for Umicore’s Rechargeable Battery Materials activity.

“NMC cathode materials have shown significant advantages in large format battery applications like electric vehicles,” said Christian Milker, business manager, 3M Electronics Markets Materials Division. “The very low cobalt compositions described in 3M’s patent will enable battery customers to further reduce cost and minimize materials cost fluctuations that are typical with higher cobalt cathode compositions. This agreement with Umicore will accelerate the market adaptation of the technology and enhance our ability to meet the rapidly growing needs of lithium-ion battery manufacturers.”

This agreement grants Umicore license to patent US 6,660,432 and global equivalents.

For more information about 3M Electronics Markets Materials Division, its products and services visit www.3M.com/batterymaterials.

About 3M
3M captures the spark of new ideas and transforms them into thousands of ingenious products. Our culture of creative collaboration inspires a never-ending stream of powerful technologies that make life better. 3M is the innovation company that never stops inventing. With $27 billion in sales, 3M employs about 80,000 people worldwide and has operations in more than 65 countries. For more information, visit www.3M.com or follow @3MNews on Twitter.

About Umicore
Umicore is a materials technology group. Its activities are centered on four business areas: Advanced Materials, Precious Metals Products and Catalysts, Precious Metals Services and Zinc Specialties. Each business area is divided into market-focused business units, be it in products that are essential to everyday life or those at the cutting edge of new technological developments.

Umicore focuses on application areas where it knows its expertise in materials science, chemistry and

metallurgy can make a real difference. Umicore generates approximately 50% of its revenues and spends approximately 80% of its R&D budget in the area of clean technology, such as emission control catalysts, materials for rechargeable batteries and photovoltaics, fuel cells, and precious metals recycling. Umicore’s overriding goal of sustainable value creation is based on this ambition to develop, produce and recycle materials in a way that fulfills its mission: materials for a better life.

The Umicore Group has industrial operations on all continents and serves a global customer base; it generated a turnover of € 6.9 billion (€ 1.7 billion excluding metal) in 2009 and currently employs some 13,700 people.

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