3M and ECOPRO Complete NMC Patent License Agreement

Battery Cathode Compositions Contribute to Battery Safety and Lower Cost

3M and Korea-based ECOPRO have entered into a patent license agreement that aims at further expanding the use of Nickel-Manganese-Cobalt (NMC) cathode materials in lithium ion batteries. Under the agreement, 3M grants a license to US6964828, US7078128, US8241791 and all global equivalents.

The cathode compositions composed of Nickel, Manganese and Cobalt offer an outstanding balance of power, energy, thermal stability and low cost. NMC cathode materials can be tailored through changes in composition and morphology to meet a wide range of demanding customer requirements 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 an improved battery safety performance and can contribute to lower total battery system costs.

"We are pleased to have reached this agreement with 3M, and we are very excited about the customer solutions ECOPRO can offer using the newly licensed NMC compositions," said Mr. Dong-Che Lee, CEO of ECOPRO. "The compositions can be particularly beneficial in emerging applications for lithium ion batteries in the transportation and grid energy storage markets."

"The compositions described in these patents will enable battery customers to further reduce cost and minimize materials cost fluctuations that are typical with higher cobalt cathode compositions," said Christian Milker, Business Manager, 3M Electronics Markets Materials Division. "This agreement with ECOPRO will accelerate the market adaptation of the technology and enhance our ability to meet the rapidly growing needs of lithium ion battery manufacturers."

About 3M

3M captures the spark of new ideas and transforms them into thousands of ingenious products. Its 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 \$30 billion in sales, 3M employs 88,000 people worldwide and has operations in more than 70 countries. For more information, visit <u>www.3M.com</u> or follow @3MNews on Twitter.

About ECOPRO

Ecopro Corporation is a worldwide leader in the development and manufacture of battery materials for a wide range of consumer, business, and industrial needs. Based in Ochang, Cheongwon, Chungbuk, South Korea, the company recorded consolidated net sales of 80 billion won (US\$ 75million) for the year ended Dec 31, 2012. The company's shares are listed on the Korea Securities Dealers Association Automated Quotation (KOSDAQ), South Korea exchanges. For more information on the company and the Ecopro's products, visit the company's website at <u>http://ecopro.co.kr</u> https://news.3m.com/2013-12-11-3M-and-ECOPRO-Complete-NMC-Patent-License-Agreement