May 23, 2007

39th Annual JCIA Technology Award Winners

Japan Chemical Industry Association

The Japan Chemical Industry Association (JCIA) recently announced the winners of its 39th Annual Technology Awards. The awards were established to promote the advancement of chemical technology and further development of the chemical industry, and superior chemical technology is commended every year.

From among 10 nominees this year, JCIA's Technology Committee headed by Mr. Yasuhisa Chiba, Representative Director & Vice President of Ube Industries, Ltd., selected the following three winners:

JCIA Technology Award (Grand Prize)

Astellas Pharma Inc. "Research and Development and Commercialization of Drug Solifenacin to Treat Overactive Bladder (OAB) Syndrome"

As a drug to treat OAB syndrome that causes frequent urination, urinary incontinence, and urinary urgency (difficult to suppress sudden urges to urinate), non-selective muscarinic receptor antagonists were traditionally used. However, since there are many side effects, such as drying of the inside of the mouth from less secretion of saliva, and the effect on urinary urgency is low, improved treatments were called for. Although the new drug is a new muscarinic M_3 receptor antagonist named "Solifenacin", there are fewer side effects such as dry mouth, and it reduces the frequency of urination and urinary incontinence, and it shows higher efficacy for urinary urgency, the core disease condition of OAB. Moreover, it has the special feature of maintaining its concentration in the blood for treatment when taken once a day. Starting in Europe in 2004, the drug has been launched in the US and Japan, and it is expected that its global sales in fiscal 2006 will reach about 34 billion yen. With an aging society, it is anticipated that the number of OAB patients will increase worldwide. Therefore, it is highly meaningful that the company has developed and commercialized the new drug to improve the quality of treatment by drugs and the quality of social lives of patients.

JCIA Technology Award (Special Technology Prize)

Hitachi Chemical Co., Ltd. "Anode Material for Lithium Ion Batteries [MAG]"

Mobile devices such as notebook computers and cellular phones are becoming smaller and lighter, and it is demanded that such devices last longer. Despite this trend, the current consumption of electricity is increasing as the functions equipped in a device multiply. Lithium ion batteries with improved performance are thus required as a valid power source.

Hitachi Chemical's anode material called MAG (Massive Artificial Graphite), unlike conventional graphite cathode materials, does not readily deteriorate as electricity current consumption increases (with large current discharge) and hence is more durable. At the same time, its capacity increases by 10-40%. Because of these excellent properties, sales of MAG have increased steadily

since it hits the market in 1999; they stood at about ￥9.5 billion in FY2006, with the share of the world market for electrode materials increasing to 45%. As demand for high-performance lithium ion batteries continues to grow, the MAG technology is expected to increase its contribution in the world market as electrode materials, which is projected to expand 10% annually.

JCIA Technology Award (Environmental Technology Prize)

Ube Industries, Ltd./Ebara Corporation

"Chemical Recycling Technology of Waste Plastics by Increased Pressure 2 Stage Gasification System"

This technology enables substantial reduction of environmental burdens by producing synthetic gas that can be used as raw material for producing chemicals from waste plastics rather than from fossil fuels. Waste plastics have traditionally been disposed of by incineration or in landfills. The technology limits the occurrence of dioxins to the minimum, does not need to be selective about waste plastics, and produces synthetic gas primarily made of hydrogen, carbon monoxide, and carbon dioxide, which can be used as raw materials for the chemical industry. Verification testing has been conducted in Ube, Yamaguchi Prefecture since January 2000, and commercial operation began in 2001. Currently, the facility has the capacity to process 100 tons/day and provides gas for chemicals production to the adjacent ammonium manufacturing plant. Furthermore, a facility with daily capacity of processing 195 tons using this technology has been in operation in Kanto District since 2003.

The awards ceremony will be held at the 16th JCIA Annual Convention to be held on May 30, 2007

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