



We are developing tomorrow's high-performance, eco-friendly materials that will change the way the world lives, works, and plays.

Today's fast-changing IT-centric business environment is fueled by the convergence of technologies, products, and markets. At LG Chem, we believe that a multidisciplinary R&D approach encompassing the fields of biotechnology, nanotechnology, environmental technology, cultural technology, and robot technology is essential to meeting the future needs of our customers. In 2005, we invested KRW 250 billion in R&D, a figure we intend to increase to KRW 830 billion by 2010. We also plan to expand our global research staff from 1,900 to 3,300 during the same period as we continue to shape the future of chemicals.

PETROCHEMICAL INNOVATIONS

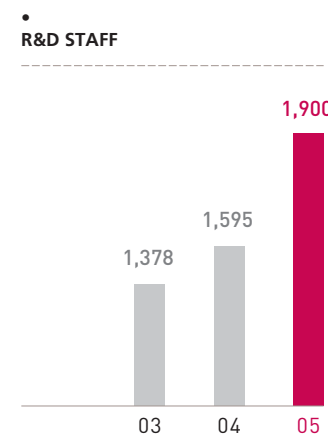
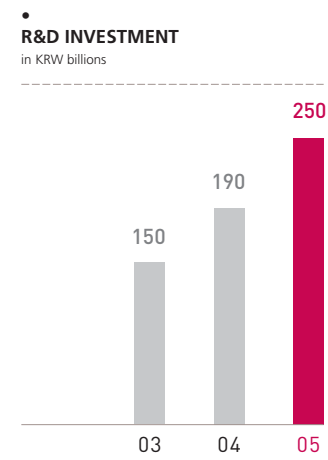
ACRYLIC ACID Acrylic acid is a key material used in super-absorbent polymers and acrylate resins. In 2005, we broke ground for our fourth acrylic acid plant, the first facility of its kind in Korea to be built entirely with local technology. The new plant will reduce our royalty burden as it strengthens our competitiveness, particularly in the Chinese market.

HYPERIER® RESIN In 2004, we developed Hyperier®, the industry's first nanotechnology-based high-barrier engineering plastic resin. We began licensing this technology in 2005, adding to the steadily increasing revenue streams generated by our intellectual property portfolio.

INDUSTRIAL MATERIAL INNOVATIONS

WOODSTONE® LAMINATED WOOD FLOORING In 2005, we introduced this new line of laminated wood flooring for radiant heating applications. Named for its unique wood and stone construction, Woodstone® is the industry's first product to leverage the detoxifying properties of green-tea powder to earn top ratings for its ultra-low volatile organic compound and formaldehyde emissions.

SOUND-FREE FLOOR SYSTEM Impact noise between floors is one of the most common complaints about apartment living. In 2005, we developed a new modular floor system that dramatically reduces impact sound transfer. Designed for use on concrete-slab floors, the system makes an ideal match with our low-profile Heatrix® radiant heating system.



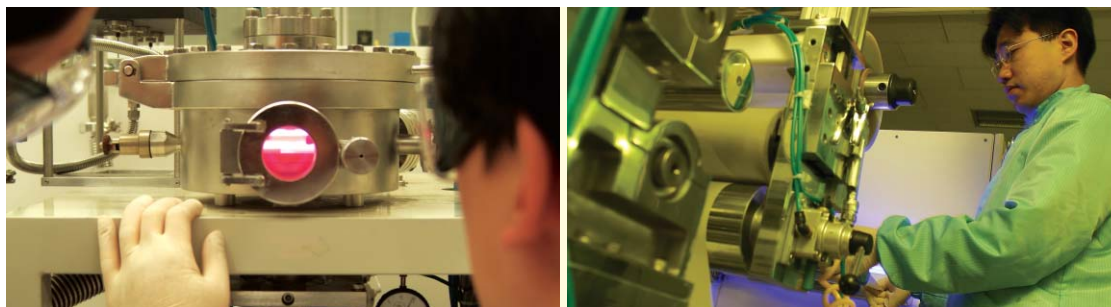
INFORMATION AND ELECTRONIC MATERIAL INNOVATIONS

LCD POLARIZERS We targeted the LCD TV market segment in 2005 by improving our polarizers for high-end products such as LG.Philips LCD's 47-inch panels featuring "true-wide in-plane switching" or TW-IPS technology. Our simplified polarizer designs are superior in both quality and price competitiveness, moving us a step closer to our goal of leading this market segment by 2007.

COLOR FILTER PHOTORESISTS We introduced our next-generation color filter photoresists featuring exceptional color clarity and transmission properties in 2005. We also became the first Korean producer to develop an inkjet-based manufacturing process. These advances were instrumental in securing new business from major Korean, Japanese, and Taiwanese LCD makers, fueling dramatic sales growth for the year.

SMALL-FORMAT BATTERIES In June 2005, we developed a new process for optimizing cathode materials, paving the way for us to deliver the industry's first 2,600 mAh lithium-ion cells. The same size and weight as our 2,400 mAh cells, the new cells are now shipping to notebook PC makers around the world.

INNOVATIONS ON THE HORIZON
FUEL CELLS In 2005, we developed a portable fuel cell that achieved dramatic performance breakthroughs in service life and operational stability, the two biggest technical challenges standing in the way of mainstream adoption. Our 25-watt fuel cell uses direct methanol technology and boasts a service life of over 4,000 hours, more than eight times longer than previously attained.



MEDIUM- AND LARGE-FORMAT BATTERIES

We are a leader in battery technology for hybrid electric vehicles through Compact Power, Inc. (CPI), a US-based subsidiary. In 2005, CPI relocated its operations to Detroit, Michigan to more effectively collaborate with the “Big Three” US automakers—GM, Ford, and DaimlerChrysler. We are also working with Hyundai on HEV battery solutions as we continue to partner with some of the world’s leading light electric vehicle makers to deliver power solutions for robots, electric bicycles, and electric wheelchairs.

INTELLECTUAL PROPERTY STRATEGY

We aim to be one of the industry’s top-three patent-winners by 2008 as we set our sights on competing with global leaders such as 3M and DuPont. To date, we have registered approximately 2,300 patents worldwide. We plan to increase this number significantly in the coming years by shifting our R&D focus to technologies with the potential to set standards in emerging fields. Our goal is to increase the weighting of core technology patents in our portfolio from the present 16% level to over 30% in 2008.

