

Invest to Serve, Innovate to Grow



The Shin-Etsu Group builds relationships of trust with customers by humbly listening to their requests and opinions, and developing and launching products that meet their needs in a timely fashion. Shin-Etsu established a tripartite business structure incorporating sales, research and production early on. It now permeates throughout the Group as a kind of basic policy that serves as the engine of Shin-Etsu's success as a consistent market leader.

Yoshiaki Ono

General Manager, Silicone-Electronics Materials Research Center
R&D and Patent Department and New Products Department

The Shin-Etsu Group deploys its core of proprietary technologies and obtains cutting-edge technological information from customers so as to create new technologies and consistently maintain world-class technological competitiveness.

Value-Added Product Development

In existing businesses, the Shin-Etsu Group promotes development of new applications and new products that meet customers' needs as the world's leading chemical company. The Group does so by rapidly sharing information with customers under its tripartite business structure. Sales and research staff work together as one team to build strong relationships with customers by following up on their needs. This enables the Shin-Etsu Group to develop and supply high-quality products. The Group's semiconductor silicon and its related materials, which have become indispensable for semiconductor manufacturing, constitute an excellent example of a business that has grown significantly from its beginnings as a research theme found in this manner. In the lithography process, another product developed through these efforts is ArF (argon fluoride) resists, a core product for next-generation lithography.

Efficient, Creative Research

In production divisions, close cooperation with research divisions supports efforts to build commercial production while maintaining and enhancing product quality. All R&D bases are located within production facilities, which is a source of strength for the Shin-Etsu Group because it allows researchers to understand the requirements of commercial production and employ this knowledge in manufacturing.

New research themes can be proposed at any time from any of Shin-Etsu's divisions, but are done mainly by staff at the

research centers. These new themes are selected by the New Z Committee, chaired by the Company president, based on the standards of technology, market size, growth potential and expected profitability. A new research project will start after the most appropriate researchers are gathered together from throughout the Company. The New Z Committee regularly follows the progress of projects. Currently, more than 10 research themes are progressing with high expectations of commercialization.

Intellectual Property Strategy

Research activities culminate in the intellectual property of patents. The Shin-Etsu Group recognizes that intellectual property, including patents and technological expertise, is an important management asset. The Group is enhancing its studies and administration regarding patent application issues in such areas as determining if the Group's technologies under development are ahead of other companies and how such technologies can best be managed with patents. At the end of March 2007, the Shin-Etsu Group as a whole held 4,389 domestic and 5,239 overseas patents. Moreover, the Group obtained 106 patents in the U.S. during 2006, ranking number one among Japanese chemical companies.

Number of Patents by Region

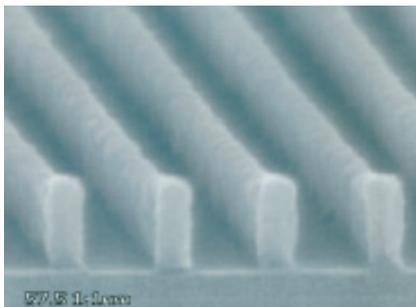
	Number of patents acquired during 2006	Cumulative number of patents acquired as of the end of fiscal 2007
Japan	534	4,389
North America	139	2,120
Asia/Oceania	314	1,333
Europe	326	1,775
Other Areas	0	11
Total	1,313	9,628



Shigehiro Nagura
Manager, New Functional
Materials Research Center

Sophisticated Technologies that Customers Trust

The Shin-Etsu Group entered the photoresist market in 1996, and has been developing leading-edge products while earning the trust of customers with high-quality and reliable production technology. We have focused on ArF 193nm wavelength excimer laser in addition to KrF 248nm applications to keep pace with the ongoing pattern pitch reduction of semiconductor devices. We worked to design new resins, additives and other materials for the 193nm wavelength while considering how to meet customer requests. The Shin-Etsu Group has a proprietary library of resin monomers and functional additives, which enables us to adjust the resin properties and total resist performance systematically. We are therefore able to enhance the resolution for ultrafine pitch patterning. In addition, we are working to reduce line width roughness and expand various process margins during pattern formation. To achieve high-level lithography performance in a timely manner, our R&D team is continuously creating new materials to respond to customer needs quickly and effectively. We are also preparing ArF-immersion and EUV resist lineups for sub-45-nanometer processes as we move forward with the development of future production technologies.



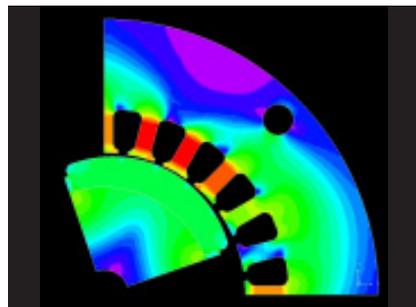
Used in cutting-edge 50nm lithography, the Shin-Etsu Group's argon fluoride (ArF) photo-resists support greater circuit density.



Koji Miyata
Group Leader, Magnetic
Materials Research Center

Environmentally Friendly Performance Gains

The Shin-Etsu Group produces rare earth magnets used in the magnetic head actuators of hard disk drives that other companies cannot match. We are now applying this technology to the motors and generators of hybrid cars. Rare earth magnets have about ten times the magnetic energy of ferrite magnets, so they can contribute to reduced size and increased fuel efficiency when used in automobile motors. Shin-Etsu's magnet business has inaugurated the MA Project, bringing together a group of experts in the application of magnets in automobiles, that will create close ties among the sales, research and production arms of business. The MA Project emphasizes the creation of stronger relationships with automobile manufacturers in countries worldwide. Using the comprehensive strengths and integrated manufacturing capabilities of the Shin-Etsu Group, it is developing new technologies such as a method for intergranular alloy diffusion that imparts both high magnetic flux density and excellent heat resistance. This will support improved automobile performance through fuel efficiency and reduced energy consumption. In addition, we are working closely with customers in ways such as using magnetic field analysis to propose the most appropriate methods for using the Shin-Etsu Group's magnets, including support in the design of magnetic circuits. Environmental protection is now global in scale, and the Shin-Etsu Group will deploy its high-level technology capabilities worldwide.



An example of Magnetic Field Analysis
This image shows the density of a magnetic field.
The red regions indicate high magnetic flux density.