

## Intellectual Property

### Utilization of intellectual property

Our group has established the Intellectual Property Department to supervise intellectual property. The Intellectual Property Department supports our group's business development and activities to increase the brand value of its products by collaborating with its business divisions and R&D divisions to apply for, secure, maintain and utilize intellectual property rights, such as patents and trademarks.

### Initiatives to Utilize Intellectual Property

#### Promotion of intellectual property activity plans

Our company uses the PDCA cycle to formulate IP Activity Plans based on the "Intellectual Property Strategy Council" headed by the general managers of each division. The divisions, research laboratories, and the Intellectual Property Department work together to promote to solve priority issues. We have also introduced the "Unit Structure" which efficiently solves problems in a wide range of business fields, from fuel oil to high-functionality materials, in accordance with the characteristics and strategies of each business. By doing so, each unit can smoothly carry out intellectual property activities such as research and analysis of patent information, patent application entitlements, public relations, planning, and management.

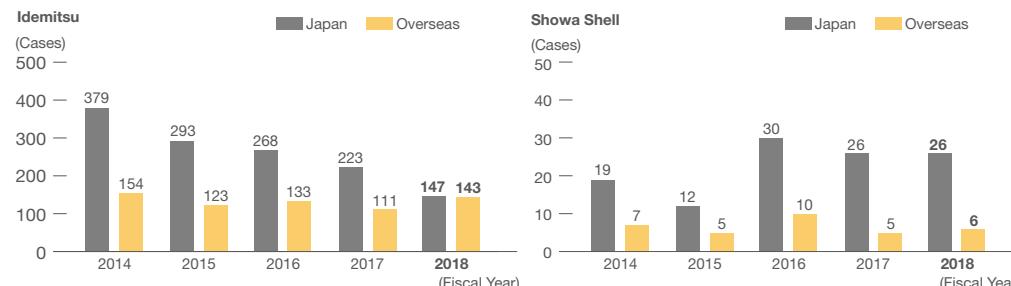
In the fuel oil field, we have entered into a cross-licensing agreement and are working to strengthen our competitiveness by reducing costs by making available patents from both parties. In the lubricating oil field, we have a large share of the global market for refrigerating machine oil, which is one of our strengths, and we have established a global patent network.

Because market growth is expected in the organic EL business, the core field of the electronic materials business, we have entered into alliance agreements with companies in Japan and overseas that hold useful patents related to organic EL materials, enabling the mutual use of patents in specific fields. Through these and other measures, we are working to create and expand businesses while expanding the areas in which development is possible.

#### Exercising Intellectual Property Rights

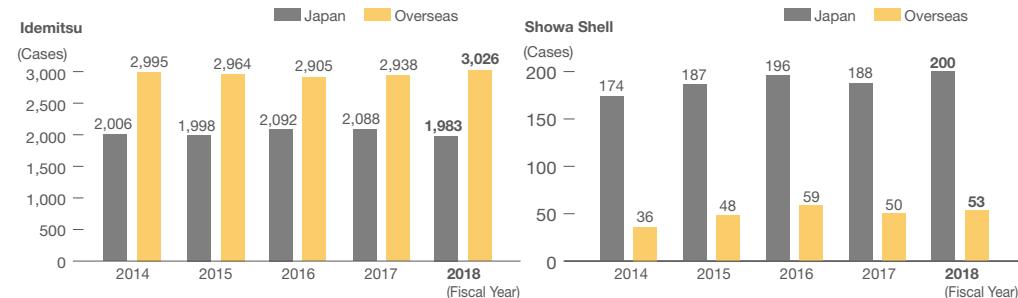
Intellectual property rights are being exercised with increasing frequency in response to the diversification of business activities, from licensing to the pursuit of alliances and mergers and acquisitions. Idemitsu established a specialized negotiations team within the Intellectual Property Department to support its various business segments by handling the negotiation and signing of technology contracts with partners as well as performing due diligence.

#### Trends in the number of patent publication



\* The number of patent publication is counted based on the international publication date.

#### Trends in the number of registered patent held



#### Working with Patent Firms and Government Agencies

Through cooperative efforts with patent firms in Japan and major overseas countries, we are focusing our energy on securing the intellectual property rights necessary for business development. We are strengthening cooperation with overseas patent firms through direct communication with patent attorneys and the dispatch of trainees. We are working to secure patent rights everywhere we do business through direct interviews, negotiations, and technology presentations with each country's examiners. In addition, with the support of the Japan External Trade Organization (JETRO), we address pressing issues besetting emerging nations, such as counterfeit products, while lobbying governmental organizations. In these ways, we remain apprised of the patent-related problems and implement robust countermeasures.

#### Responding to the Patent Laws of Each Country

Patent laws are set independently by each country, and the application for as well as the receipt and maintenance of patents requires adherence to said laws. With a rising number of corporations pursuing global expansion, there has recently been a global trend toward patent law revision aimed at facilitating swift patent acquisition and the international harmonization, including by ironing out differences between laws, rules, and examination processes. Because of this, in the countries in which they operate or their products are sold, businesses have to pay close attention to every law revision and new piece of legislation. In line with the globalization of business, the Intellectual Property Department stays informed of changes in relevant laws and examination processes used by individual countries and regions, from the United States to Europe, China, South Korea, Taiwan and others, and takes these changes into account during daily intellectual property activities.

#### Providing Staff Education

Idemitsu is striving to help its employees to be mindful of Intellectual property by, for example, providing staff education.

\* This means we strive to ensure employees' awareness of fair competition and respect for the intellectual property rights of other companies while promoting business development by leveraging competitive advantages afforded by acquiring and exercising our own intellectual property rights.

#### Data Analysis

To beat global competition, it is imperative that the Idemitsu Group understands the strengths and weaknesses of its intellectual properties within the industry while comparing and analyzing the competitiveness of rival companies. Because it is important to examine and analyze large numbers of patent abstracts around the world to create our own strategies leveraging our strengths, we have established a specialized patent information group.

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### External Recognitions

● Award from the Commissioner of Japan Patent Office under the Intellectual Property Achievement Awards Program  
(April 11, 2018)

Idemitsu was chosen to receive an Award from the Commissioner of the Japan Patent Office, as one of recipients of Awards for Excellent Corporation Utilizing the Intellectual Property Rights System under the FY2018 Intellectual Property Achievement Awards program.

The Intellectual Property Achievement Awards program, sponsored jointly by the Ministry of Economy, Trade and Industry and the Japan patent Office, is intended to commend individuals and corporations that contributed to the development of the country's intellectual property right system.

Idemitsu was highly commended for its track record in promoting its plans associated with intellectual property rights.

● 2018 Japan Institute of Invention and Innovation's Excellent Invention Award  
(May 17, 2018)

Idemitsu was selected as a winner of both an Excellent Invention Award and an Award for Outstanding Practice of Innovation by the Japan Institute of Invention and Innovation under its FY2018 National Commendation for Invention program. This selection was attributable to an OLED element and an organic light emitting medium both developed by Idemitsu (patent No. 4221050).

The Japan Institute of Invention and Innovation has been sponsoring this award program to commend Japan's leading researchers and scientists who contributed to the enhancement of the country's scientific technologies and the development of its industrial sector. This award program is widely recognized as the most prestigious among intellectual property-related award programs in Japan.

In the development of a blue light-emitting element, which had been said to be difficult to put into practical use, Idemitsu achieved a blue color light-emitting element with much higher color purity than the previous blue one, contributing to prolonged life of displays. Idemitsu was highly evaluated by the institute for the significant contribution to the practical use of OLED full color displays.

