

Research and Development

Guided by the GS-21 Medium-Term Business Plan as an overriding development policy, the Kuraray Group aims to convert from quantity to quality as it becomes a specialty chemicals company that can achieve sustainable growth. To that end, we will concentrate efforts on business “refinement” by developing businesses based on not only materials but also on highly processed components with high added value. At the same time, the Kuraray Group will draw on its long-standing competences by developing materials for such promising growth fields as optics, electrics/electronics, automobiles, environmental products, energy, and health care.



FRONT-LOADING BUSINESS COMMERCIALIZATION

Employing more than 820 researchers and engineers, the Kuraray Group's R&D activities comprise corporate research, undertaken by the New Business Development Division; divisional R&D, undertaken by in-house companies and affiliates; and manufacturing technology development, undertaken by the Technology Division. Of those personnel, 35% are involved in corporate research, 60% work for Group companies or affiliates, and 5% belong to the Technology Division.

In corporate research, we stepped up the pace of new business creation by integrating the Corporate Strategy and Planning Division and the Research and Development Division to establish the New Business Development Division in April 2005. We tasked this new division with accelerating commercialization of business creation projects and identifying next-generation businesses.

Moreover, the Project Promotion Department, which we established to front-load business commercialization in priority fields, is moving forward with business creation centered on operations for environmental products, display components, electronics materials, and medical-use microdevices.

Further, in September 2005 Kuraray began joint development with T. Chatani & Co., Ltd. of a breakthrough ultra-bright long-lasting inorganic EL material invented by T. Chatani & Co. In April 2006, Kuraray and T. Chatani & Co. jointly established a development company, K•C Luminas Co., Ltd. in which Kuraray is responsible for manufacturing technology development and industrialization.

FORTIFYING AND EXPANDING EXISTING BUSINESSES THROUGH MATRIX MANAGEMENT

We employ a matrix management system in which corporate research performs an inter-divisional coordinating role for the R&D activities of each division. Consequently, the New Business Development Division pursues corporate research through close collaboration with manufacturing technology departments and the R&D departments of in-house companies and affiliates. Since vinyl acetate chain related operations are our mainstay operation – generating approximately one-third of revenues – we allocate about 10% of corporate research investment for vinyl acetate related R&D. Among these efforts, we are researching new applications for PVB, in addition to those produced by our existing operations, and we hope to use the outcomes of these efforts in the development of new products and markets.

New Business Creation

WHAT TYPE OF PROMISING NEW BUSINESSES AND R&D PROJECTS IS KURARAY CURRENTLY PURSUING?

Our vision is to develop and provide innovative, indispensable materials for customers. To that end – using core competence in such technologies as organic synthesis, catalysts design, synthesis and composition of polymers as a base – Kuraray is leveraging nanotechnology as well as processing technologies accumulated for sheet and film, precision molding, and optical design while applying component design and assembly technologies.

In R&D, we are creating new businesses in a range of fields. In optics, we are focusing on inorganic EL materials, backlight devices, LCD components, and others. In electronics/energy, we are concentrating on fuel cell components (electrolyte membranes), and capacitor components. Further, in health care

we are developing medical-use microdevices, orthopedic materials, and others. In addition, having sharpened the focus of development themes, we are concentrating efforts on new barrier materials, new elastomers, next-generation man-made leather, and advanced PVA materials with a view to enhancing the quality of our operations.

By strategically concentrating the deployment of management resources, Kuraray is decisively advancing these promising projects. In addition to the materials field, the Company will pursue midstream and downstream M&A to buttress management resources for new business creation and step up the pace of development.

CREATION OF NEW BUSINESSES

Optoelectronics (Optics) Field

- Inorganic EL materials
- Backlight devices
- LCD components
- Others

Electronics/Energy Field

- Fuel cell components
(electrolyte membranes)
- Capacitor components
- Others

Health Care Field

- Medical-use microdevices
- Orthopedic materials
- Others

ENHANCEMENT OF OPERATIONAL QUALITY
(CREATION OF ADVANCED PERFORMANCE MATERIALS)

High-Performance Resins/Films

- New barrier materials
- New optical-use films
- Advanced PVA materials

Chemicals

- New elastomers
- Electrochemicals

Fibers and Textiles

- Next-generation man-made leather
- Advanced function fibers and textiles

To supplement new-business-creation management resources and accelerate development

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M&A

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