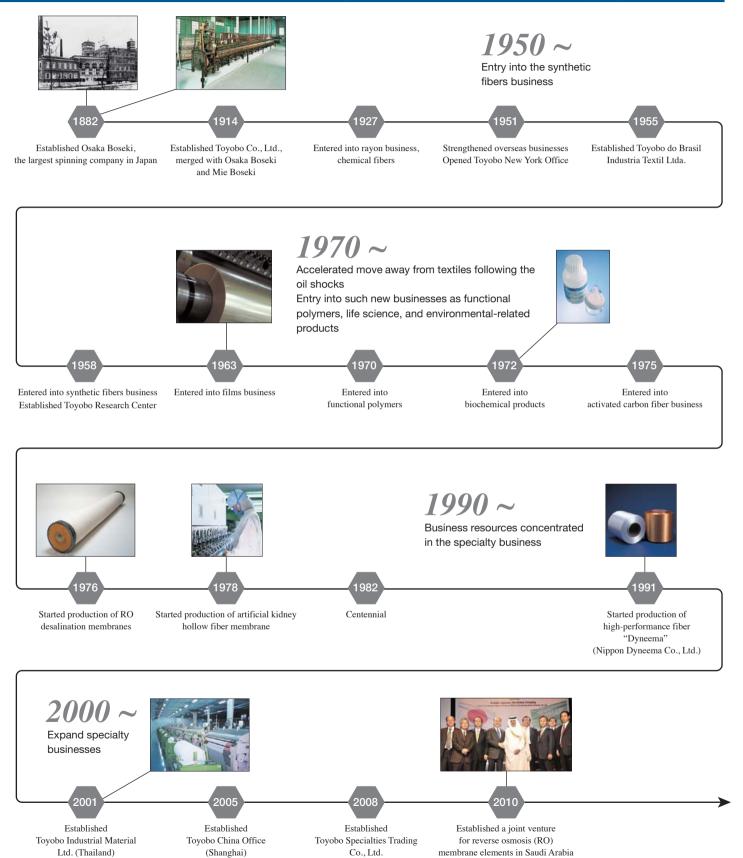


#### **Corporate History**

#### Diversification into a Broad Range of Fields with the Changing Times



Established the Fine Chemicals Department

#### Profile

Toyobo Co., Ltd. was founded as a textile company in 1882. Over the years, the Company has adapted its business in accordance with the changing times. The most recent facet of this adaptation is a concentration of management resources in the segments of Films and Functional Polymers, Industrial Materials, and Life Science, specialty businesses that draw on Toyobo's unique core technologies in polymerization, modification, processing, and biotechnology. With this focus, we have moved into an era of accelerating growth. Our aim is to become "The category leader for providing new value in the environment, life science, and high-function products fields."

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Business Segments and Fields ———— 20

#### **Caution Regarding Business Forecasts and Forward-Looking Statements**

Business forecasts and other forward-looking statements regarding Toyobo Co., Ltd. found in this annual report reflect the management's assessment based on data available to it at the time that such were compiled. Readers are cautioned that actual business results may differ materially from these statements due to market trends, economic conditions, and other factors.

#### **Consolidated Financial Highlights**

TOYOBO CO., LTD. AND CONSOLIDATED SUBSIDIARIES Years ended March 31

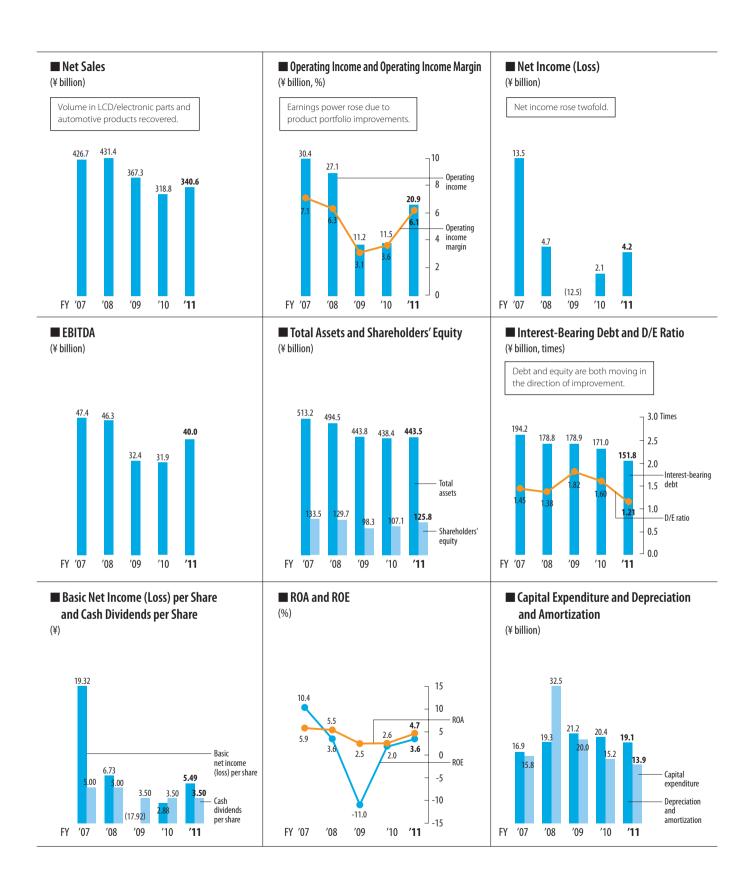
	Millions of yen				Thousands of U.S. dollars (Note 1)	
	2011	2010	2009	2007	2006	2011
Net sales	¥340,573	¥318,773	¥367,271	¥431,417	¥426,666	\$4,095,887
Films and functional polymers	126,960	114,928	122,312	134,631	124,614	1,526,879
Industrial materials	71,462	63,157	74,656	76,138	74,391	859,435
Life science	31,386	32,377	33,123	33,961	32,639	377,462
Textiles	86,832	88,373	111,736	142,471	149,585	1,044,281
Real estate (Note 2)	3,602	4,564	4,649	4,267	_	43,319
Other businesses (Note 2)	20,331	15,374	20,795	39,950	45,437	244,510
Operating income	20,890	11,469	11,229	27,075	30,435	251,233
Net income (loss)	4,155	2,094	(12,505)	4,698	13,472	49,970
EBITDA	40,003	31,888	32,435	46,349	47,373	481,094
Depreciation and amortization	19,113	20,419	21,206	19,274	16,938	229,862
Capital expenditure	13,931	15,166	20,039	32,486	15,753	167,541
R&D expenses	10,634	10,296	10,669	10,877	10,426	127,889
Total assets	443,516	438,439	443,816	494,496	513,191	5,333,927
Shareholders' equity (excluding minority interests)	125,770	107,095	98,253	129,671	133,521	1,512,568
Interest-bearing debt	151,804	170,963	178,901	178,842	194,239	1,825,664
Net cash flows provided by (used in) operating activities	33,714	29,024	(368)	23,282	27,064	405,460
Net cash flows used in investing activities	(11,579)	(13,455)	(15,803)	(10,193)	(2,925)	(139,254
Net cash flows used in financing activities	(9,915)	(15,832)	17,379	(17,948)	(22,439)	(119,242
Per stock data (yen):			Yen			U.S. dollars (Note 1
Basic net income (loss) per share	¥5.49	¥2.88	(¥17.92)	¥6.73	¥19.32	\$0.066
Cash dividends	3.50	3.50	3.50	5.00	5.00	0.042
Financial ratios:						
ROA (%) (Note 3)	4.7	2.6	2.5	5.5	5.9	_
ROE (%)	3.6	2.0	(11.0)	3.6	10.4	
Equity ratio (%)	28.4	24.4	22.1	26.2	26.0	
D/E ratio (times) (Note 4)	1.21	1.60	1.82	1.38	1.45	

Notes: 1. The U.S. dollar amounts in this report represent translations of yen for convenience only at the rate of ¥83.15 to \$1.00.

2. The real estate leasing business was previously included as part of the Other Businesses segment, but since the value of the assets in this business has exceeded 10% of the total value of assets in the segment, from the year ended March 31, 2009, the segment classification has been changed to include the Real Estate segment. Segment information for the year ended March 31, 2008 has been restated.

3. ROA: Operating income basis.

<sup>4.</sup> D/E ratio: Interest-bearing debt/net assets excluding minority interests.



#### To Shareholders and Investors



We would like to express our deepest sympathies to all those who have suffered from the effects of the Great East Japan Earthquake and are praying for an early recovery from the disaster.

#### Review of Fiscal 2011

During fiscal 2011 (ended March 31, 2011), the business environment showed gradual recovery during the first half against a background of expansion in overseas economies, particularly in China. However, in the second half, economic trends became more uncertain as a result of the appreciation of the yen and sharp increases in raw material prices and fuel costs, and suddenly deteriorated substantially in March because of the impact of the Great East Japan Earthquake.

Amid this operating environment, our indicators of profitability, operating income and net income, rose approximately twofold from the levels of the previous fiscal year. There were two principal reasons for this. The first was the recovery in sales volume in the first half of the fiscal year. This is because we were able to recover and expand as we took advantage of the improvement in the markets for LCDs, electronic components, and automotive products. The second reason was the reform in our product portfolio through the launching of new products. For example, sales of the lowinterference film that we developed for touch panels on smartphones and tablet PCs expanded along with the rapid growth in the market for these devices. In addition, the results of our development activities in each of our businesses, such as the new type of shrink film for use on PET bottles, began to emerge.

As a result of these measures, consolidated net sales rose ¥21.8 billion (6.8%), to ¥340.6 billion; operating income showed sharp expansion of ¥9.4 billion (82.1%), to ¥20.9 billion; and net income grew ¥2.1 billion (98.4%), to ¥4.2 billion.

In managing its financial position, Toyobo emphasized asset efficiency, and, even in the midst of recovery and expansion in its business activities, worked to restrain the balance of its working capital. Toyobo generated cash flow from operating activities of \(\frac{\frac{4}}{33.7}\) billion and reduced its interest-bearing debt by \(\frac{\frac{4}}{19.2}\) billion. Along with this, Toyobo raised funds amounting to \(\frac{\frac{4}}{16.8}\) billion through the issuance of new shares for financing capital investments aimed at growth. As a result of these measures, Toyobo's debt-equity ratio decreased from 1.60 to 1.21 times.

Please note that the injuries and damage to the Toyobo Group's personnel, buildings, and equipment from the Great East Japan Earthquake were minimal.

#### Initiatives to Address Medium-Term Management Issues

The Toyobo Group has been addressing two major management issues simultaneously since 2000. These have been, first, making structural reforms in its textile and other businesses and, second, expanding specialty businesses, comprising its film and functional polymer, industrial materials, and life science businesses. In fiscal 2009,

however, Toyobo virtually completed its structural reforms in its textile and other businesses, and has now moved on to its New Growth Stage, where it is focusing its resources on accelerating growth in its specialty businesses.

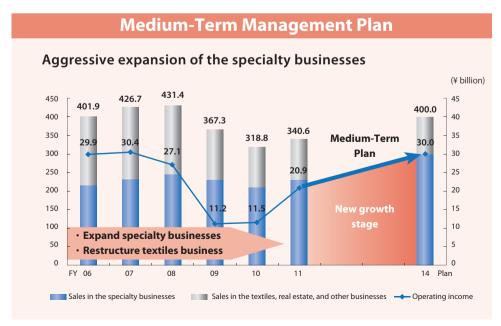
In the medium-term management plan that Toyobo announced in May 2010, covering the four-year period ending fiscal 2014, Toyobo is focusing its management resources on high-margin, high-growth specialty businesses under its management policy of "continual reform of the business portfolio." Toyobo is aggressively expanding these activities in the world market as it continues to take initiatives to increase asset efficiency and improve its financial position, with the goal of further increasing its corporate value. The principal issues that Toyobo is addressing are as follows:

#### (1) Investments to Expand Capacity

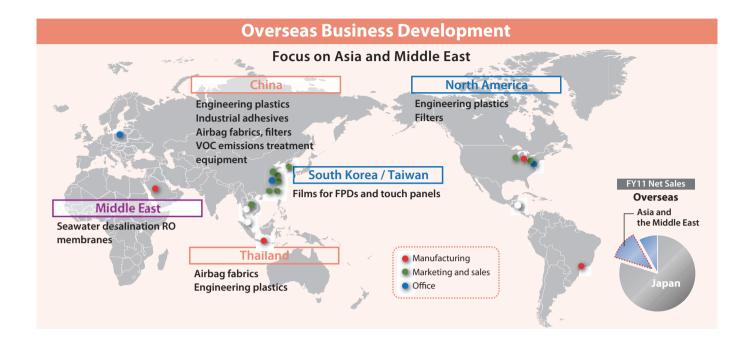
Toyobo is implementing investments, alliances, and M&A deals to increase its production capacity in its specialty businesses to capture emerging opportunities. These include investments in capacity for industrial films for use in touch panels, photovoltaic cell backsheets, and other products where expansion in demand is expected. Investments also

include high-melting-point polyamides, fine polymers, airbag fabrics, bioproducts, contract manufacturing of pharmaceuticals, and water treatment membranes, all of which are expected to be growth sectors.

To raise funds for implementing these investments in new capacity aggressively, Toyobo increased its capital through the issuance of new shares overseas in March 2011.



#### To Shareholders and Investors



#### (2) Acceleration of Overseas Business Development

Toyobo is working to expand its revenues in growing overseas markets, focusing on Asia and Middle East. In addition to materials for flat panel displays (FPDs), electronic components, automotive products, and other items, Toyobo is taking initiatives to enable it to respond to rising demand overseas in the environment-related fields. These include the development and marketing of VOC\* emissions treatment equipment as well as water treatment membranes, which process seawater into drinking water.

In this connection, Toyobo is moving forward with the establishment of manufacturing and marketing networks overseas and putting in place development capabilities that can respond speedily to needs in the field. As part of overseas development activities, Toyobo is actively forming alliances with companies overseas, such as its joint venture with Saudi Arabian interests in the water treatment membrane field.

\*VOC: Volatile organic compounds

#### (3) Improvement of the Product Portfolio through New Product Development

Based on its experience in the textile business, Toyobo is aware that there is a possibility that "over the course of time, products will become commoditized." For companies to survive and grow, they must add to their product lineup as the times change to respond to evolution in the business environment. The key to this is the development of new products. The Toyobo Group must anticipate change in the market and our development, manufacturing, and marketing functions must work together to offer new products to customers. Toyobo also works actively in developing new products through collaboration with external partners.

#### (4) Improving Asset Efficiency

In its textile business, Toyobo has not hesitated to implement structural reforms as it has involved downsizing and the scrapping of facilities. However, under the assumption that conditions in the business environment will continue to be difficult, Toyobo is continuing to focus its activities in the textile business on certain functional areas, including

sportswear and underwear. In all its activities, including specialty businesses, we move forward together with Group companies in all business fields to insist on management with an emphasis on the efficient use of capital.

#### Forecast for Fiscal 2012

In fiscal 2012 (ending March 2012), the economies of Asia, centered around China, and elsewhere are expected to continue to show a gradual recovery trend, and demand from overseas is forecast to remain firm. However, some impact is expected due to the substantial increases in raw material and fuel prices and foreign exchange fluctuations. Moreover, extremely uncertain conditions are forecast to continue going forward because of the decline in production in the automobile and other industries and the disruption of supply chains due to the Great East Japan Earthquake. Under these circumstances, Toyobo, in line with the growth plans in its medium-term plan that it began to implement in fiscal 2011, is accelerating its plans for improving its product portfolio by launching and expanding sales of new products. Under the assumption that the substantial cutbacks in production will continue in the automobile industry, which is a core customer industry for Toyobo, efforts will be directed at securing a level of income at about the same level as in fiscal 2011.

In view of these prospects for fiscal 2012, Toyobo has set the following target for the year: Net sales of ¥345.0 billion (representing an increase of ¥4.4 billion over the previous fiscal year, operating income of ¥20.0 billion (a decrease of ¥0.9 billion), and net income of ¥7.0 billion (an increase of ¥2.8 billion).

#### Returns to Shareholders

Toyobo considers providing returns to shareholders to be one of its highest priorities. Our basic policy regarding dividends is to continually provide a stable dividend, in an amount



determined through a comprehensive consideration of such factors as improving the financial position, profit levels, and retained earnings for future investment. In line with this policy, Toyobo paid a year-end dividend for fiscal 2011 of ¥3.5 per share. For fiscal 2012, Toyobo also plans to pay a dividend of ¥3.5 per share based on the forecast net income of ¥7.0 billion.

In conclusion, I would like to thank our shareholders and investors for their continuing support and understanding.

R Talisan

June 2011

Ryuzo Sakamoto

President and Chief Operating Officer

#### One of the Action Plans in the Toyobo Group's current medium-term management plan is entitled "Accelerating Overseas Business Development." In recent years, in China and other regions in Asia, certain of our businesses have shown expansion supported by strong demand.

These include films for LCDs and optical uses, engineering plastics and airbag fabrics for automotive use, and industrial adhesives for electronics applications. We believe that, for Toyobo to expand its business operations in these areas, it will be necessary to respond to growing demand for these products in overseas markets.

Our specific business policies will include (a) localization

#### **Strategies and Topics**

#### Overseas **Business Development**



of our product development activities overseas and (b) undertaking production in the local markets. For example, in the electronics field, where business models operate on short cycles, it is important to identify local needs as quickly as possible and provide the needed solutions. Thus far, we have relied mainly on sending personnel from Japan in our product development activities, but, to respond precisely to user needs, from now on, we will respond by establishing bases in these markets.

Also, by having production facilities in the regions, we will be able to meet user needs on short delivery schedules and avoid currency risk. In the airbag fabric business, after establishing a fabric production

#### "Grassroots" Marketing Wins User Confidence

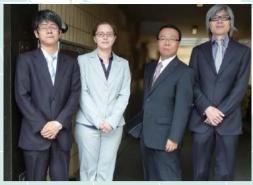


Dr. Nobuya Fujiwara

desalination in the Gulf States in the Middle East would be the largest in the world and that this area could best draw on the special characteristics of Toyobo's "HOLLOSEP" membranes. So, we mounted a small desalination unit on a trailer, and in 1981 and into 1982, we conducted a test campaign in that area. As a successful result

of this "grassroots" campaign that focused on problemsolving technology for such plants that have faced a fouling problem on the membrane and other problems that impaired stable operation, the reliability of our "HOLLOSEP" water the countries in the region. This, in turn, has enabled us to win the top market share in the region.





Europe Office (Dusseldorf)

plant in Thailand in 2001, we established a joint venture for manufacturing and marketing airbag fabrics with Toyota Tsusho Corporation in Changshu, China in May 2011, and

東洋筋 東洋筋 東洋筋膜系含社 TONOSO CO. LTD 上海東鮮形 SHAKGHAI OFFICE

China Office (Shanghai)

production is scheduled to begin in April 2012. Also, in the seawater treatment membranes business, which is experiencing strong demand worldwide, we established a joint venture for manufacturing and marketing seawater desalination elements with a Saudi Arabian company, and

that company is scheduled to begin production in the latter half of 2011. Going forward also, we plan to form business alliances aggressively with overseas companies. In the development of our overseas business activities, we are (a) selecting growth markets, (b) emphasizing that we have strong technology, which is the basis for our business operations, and (c) working to maintain sustainability, or, in other words, we are emphasizing the contributions we can make to societies. Going forward, in the electronic and information display field, we will be focusing on expanding sales of LED and optional films and "VYLON" industrial adhesive for use in electronic parts; and, in the automotive field, sales of engineering plastics, "HARDLEN" modified polyolefin, airbag fabrics, functional filters, and other products. In addition, in the environment-related field, we will work to contribute to preserving the environment by expanding sales of photovoltaic cell backsheets, VOC emissions treatment equipment, and other products.



Toyobo America, Inc.



In February 2010, we established the first company in Saudi Arabia to manufacture and sell reverse osmosis (RO) membrane elements for seawater desalination. This joint venture company will act as the base for expanding our position in the desalination market in the Middle East, where it is expected to continue to expand in the future. The company is scheduled to work to expand sales of RO membrane elements for seawater desalination, not only in Saudi Arabia but also in other countries in the Middle East and North Africa.

Toyobo's membranes are composed of hollow fiber membranes made of cellulose triacetate (CTA), which has superior resistance to chlorine. It is effective in preventing growth of microorganisms. This prevents membrane bio-fouling, and allows for the stable production of high-quality water.

The superior performance of Toyobo membranes has been particularly recognized in the Middle East, the world's largest market for desalination, and Toyobo has more than a 50% share in the Middle East.





# Environmental

In recent years, as awareness of the natural environment has increased worldwide, Japanese companies have taken pride in their technologies for addressing environmental issues. Toyobo is responding to market needs by drawing on its unique core technologies related to water treatment membranes and materials for cleaning the atmosphere. In addition, Toyobo has also moved forward with the development of materials used in solar batteries and is contributing to the conservation of the global environment.

#### Segment Topics 1

#### **Development of new uses for VOC** emission treatment equipment and systems

Toyobo is expanding sales of equipment and systems in Asia for the removal and treatment of volatile organic compounds (VOCs) that use its original adsorption material, such as activated carbon fibers, activated carbon honeycombs, zeolite honeycombs, and others. VOCs are contained in the gas emitted during various manufacturing



processes, including those for semiconductors, LCDs, and printing as well as lithium-ion batteries, for which demand is expected to rise.

#### Segment Topics 2

#### Films for photovoltaic backsheets

Toyobo manufactures various types of polyester (PET) films that are used as photovoltaic backsheets. Recently, the bottom layer glass of photovoltaic backsheets tends to be replaced by several layers of PET films; furthermore, replacement from fluoride films to PET films is proceeding. In addition, expansion in sales of these films is anticipated.



#### **Product Overview**



RO membrane element for seawater



Activated carbon fiber "K-FILTER": Fibrous activated carbon that adsorbs and removes harmful substances and malodorous elements



Ultrafiltration (UF) membrane module for



Bag filters: Filter cloth material for high-temperature bag filters



Low-pressure RO membrane module for



Amorphous polylactic acid resin



"TOYOBO GS Catalyst": heavy metal-free



Water-dispersible co-polyester "VYLONAL"

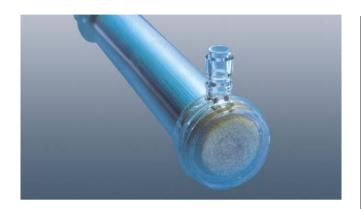
# Medical care in developed countries is expected to become increasingly advanced, and the need for medical services in emerging countries is forecast to expand. New developments will include the

growth of the antibody drugs market. Along with these trends, Toyobo will continue to make

contributions in the areas of enzymes for diagnostic medical membranes and the contract

manufacturing of pharmaceuticals.

## Supporting life science



#### Segment Topics 1

#### Hollow fiber membranes for artificial kidneys

Based on its advanced technologies of precise micro-phase separation and pore size control, Toyobo has developed hollow fiber membranes for artificial kidneys, and commercialized them to provide patients with a better quality of life. Due to their reliable high performances and qualities, these membranes have been accepted worldwide and are used for treating hemodialysis patients all over the world. Toyobo will keep on advancing the development of even higher performance membranes, and apply these membrane technologies in areas other than medical use.



#### Segment Topics 2

#### **Contract manufacturing** of pharmaceuticals

Following the revision of Japan's Pharmaceutical Affairs Act, pharmaceutical companies have shown increasing interest in shifting to the contract manufacturing of pharmaceuticals. Toyobo is engaged in this business and, with its facility for the production of injectable drugs that respond to overseas Good Manufacturing Practices (GMP), is receiving many inquiries from customers among pharmaceutical companies. Also, in the field of the contract manufacturing of antibody drugs, Toyobo has one of the largest reactors for mammalian cells in Japan with a capacity of 4,000 liters.

#### **Product Overview**



FAD-GDH enzyme for self-monitoring of blood



Antibody drugs production plant



Automated urine sediment analyzer



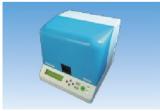
Unique reaction enhancers for immunoassay



Automated gene analyzer "GENECUBE"



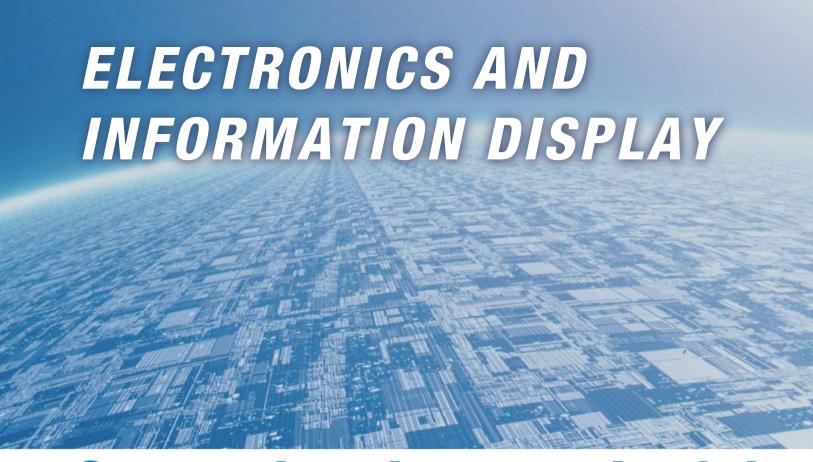
Unique enzymes for gene amplification KOD DNA polymerase series



Automatic analyzer "POCube



Extracorporeal circulation cannula



#### Supporting the growth of the

#### Segment Topics 1

#### Low-interference film "COSMOSHINE"

Toyobo's "COSMOSHINE" achieves the combination of two contradictory properties of slickness and transparency at a high level. Toyobo has also developed and introduced a low-interference type of "COSMOSHINE" that features improved performance in humid and high-temperature environments and reduction in interference ripples after undergoing hard coat processing. This new product responds to the needs of manufacturers for a base film for touch panels on

smartphones, tablet PCs, and other products.





#### Segment Topics 2

#### Co-polyester "VYLON" series

The "VYLON" series, the first high molecular weight saturated polyester to be produced in Japan, was introduced in 1965. It was evaluated highly for its superior adhesiveness, durability, adaptability to various environments, stable quality, and other properties in a wide range of fields, including food product packaging, electric equipment, and automobiles. In addition, "VYLON" is used as a conductive paste in smartphones and other devices with touch panels, and demand for this product is

rising rapidly.







### electronics industry

In the electronics and information display field, components are rapidly becoming smaller, thinner, and lighter. In addition, a number of markets, such as smartphones and tablet PCs, are appearing.

Toyobo draws on its polymer, film forming, and processing technologies to provide such functional products as films for LCDs and optical uses, adhesives for electronic components, and conductive paste for touch panels. Toyobo is also introducing high-performance products, including high heat-resistance polyimide films.

#### **Product Overview**





High heat-resistance polyimide film "XENOMAX"





Transparent polyamide-imide film





Polyamide resin "GLAMIDE"



Heat curing type polyimide solder resist ink



Easily moldable biaxially drawn polyester film

# E HOMONIUM TO MANAGEMENT TO MA

# Contributing to safety and reducing the burden on the environment

Automobiles are required to offer a high level of safety and comfort as well as durability. Moreover, the burden they place on the environment must be reduced.

Based on its technology developed in synthetic fibers, and after raising its engineering plastic technology and filter technology to a high level, Toyobo supplies high-functional products, including airbag fabrics and engineering plastics.



#### Segment Topics 1

#### Recyclable coated fabrics for airbags

For many years, silicone resin has been widely used as coating material for airbags. Toyobo has introduced a new coated fabric based on polyamide resin that was originally developed. As a result, the fabric can be recycled without separating the coating material from the fabric. In addition to our lineups of uncoated and silicone coated fabrics, this newly developed fabric can be used in a wider range of automobile airbag applications.



#### Segment Topics 2

#### Polyolefin adhesive primer "HARDLEN"

This polymer finds application as a paint primer for use on polypropylene bumpers as well as in other uses that include ink and adhesives. Looking ahead, the unit production of automobiles in China and other emerging countries is expected to increase. Since this will lead to expansion in the volume of "HARDLEN" needed, Toyobo is taking steps to add another production line and expand this business.



#### **Product Overview**



Polyamide resin "GLAMIDE"



Polyester resin for low-pressure



Crystalline polyester resin



Thermoplastic polyester elastomer



Polyester engineering plastic





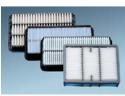
Tetrazole gas generating agents for



High-strength polyester fiber for tire



Automobile cabin filters



Automobile engine filters



Spunbond "CATENA" for automobile tonneau covers



Taft-carpet base fabric

#### **Products to make life safer** and more comfortable

Toyobo products that help to create safer and more comfortable lifestyles include food packaging, high-performance fibers that protect the hands of workers, and functional textiles that absorb perspiration and dry instantly as well as absorb moisture and generate heat.

#### Segment Topics 1

#### **Packaging films**

In addition to its polyester, polyamide, polypropylene, linear low-density polyethylene, and other types of films, Toyobo produces high-functional films that are specially processed for use in surface treatment and vapor deposition applications to meet a wide range of packaging needs. These are used in a broad spectrum of applications, including food products, cosmetics, pharmaceuticals, and toiletries.



#### Segment Topics 2

#### Fibers for comfortable apparel

The characteristics of the clothes we wear can keep us comfortable, even on a hot summer day. Toyobo has developed and offers several types of new materials that are comfortable to wear. These include "DRYFAST", a special spinning yarn that is soft to the touch but also has superior perspirationabsorbing and quick-drying properties. Another product we offer is "FIRACISAQOOL", a sophisticated type of yarn that provides coolness to the touch as well as has underwear-level, moisture-removal properties.

#### **Product Overview**



Polyester synthetic paper "CRISPER"



Beverage can adhesive



High-performance thermoplastic composite



Ultrahigh-strength polyethylene fiber "Dyneema"



Application of PBO fiber "ZYLON"



Inverse tapered containers



Three-dimensional spring-structured fiber "BREATHAIR"



Cosmetics ingredients "PHYTOPOLYAMINE"



"MOISCARE"



Acrylic fibers



Comfort evaluation



# Business Segments

#### ▼ Business Segments

#### Fields >

#### **Films & Functional Polymers**

This segment comprises the films and functional polymers business units.

#### Industrial films

• PET films for (i) LCD and optical use, (ii) photovoltaic backsheets, (iii) touch panels, (iv) ceramic capacitor process sheets, and (v) other industrial uses synthetic paper

#### Packaging films

• PET, polyolefin, polyamide for food packaging, heat-shrink PET films

#### **Functional polymers**

- engineering plastics, "VYLON": co-polyester
- photo-sensitive printing plates, acrylate polymers, electronic materials

#### Fine polymers

modified polyolefin adhesives





#### **Industrial Materials**

This segment supplies a wide range of Toyobo's functional materials.

#### **Functional fibers**

• airbag fabrics, polyester yarn for tire cords

#### High-performance fibers

- "Dyneema": ultra-high-strength polyethylene fiber
- "ZYLON" (PBO fiber): extreme heat-resistance, high-tenacity fiber

#### Functional filters, non-woven fabrics

- filters for (i) automotive components, (ii) office equipment, and (iii) air purifiers
- VOC emissions treatment equipment and systems with activated carbon filters
- non-woven fabrics for automotive parts and construction materials





#### Life Science

This segment handles the medical services, healthcare, and well-being markets.

#### **Bioproducts**

• enzymes for diagnostics, diagnostic systems and reagents, life science research reagents, cosmetic ingredients

#### **Pharmaceuticals**

 contract manufacturing (injections, pharmaceuticals intermediates, raw pharmaceuticals, antibody drugs)

#### Medical membranes, equipment and devices

hollow fiber membranes for artificial kidneys, anti-clotting materials

#### Water treatment membranes

- · seawater desalination reverse osmosis membranes
- ultra-filtration membranes for tap water

# ■ Sales ■ Operating Income



#### **Textiles**

This segment is the driver for high-value-added functional materials for apparel, developed with Toyobo's unique technologies,

#### **Textiles**

• functional textiles (for sportswear, underwear, uniforms)

#### Apparel products

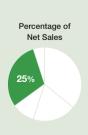
· "Munsingwear"

#### **Acrylic fibers**

• "EXLAN": acrylic fibers







# and Fields

Automotive	Electronics & Information Display	Environment	Life Science	Lifestyle & Safety
Engineering plastics	PET films for flat panel displays	PET films for photovoltaic backsheets		Packaging films
Bioma	ss high-melting-point poly	amide		
	Co-polyester adhesives			150
M	odified polyolefin adhesive	es		No.
	Acrylate polymers			1
Airbag fabrics  Functional filters		VOC emissions treatment equipment and systems		Ultra-high-strength polyethylene fiber "Dyneema"
Non-woven fabrics		Functional filters		
240				
		Water treatment membranes	Medical membranes	
			Enzymes for diagnostics	
			Diagnostic systems and reagents	Cosmetics ingredients
		A STATE OF THE PARTY OF THE PAR	Pharmaceuticals (contract manufacturing)	
			6	
- AND STATE OF THE PARTY OF THE				Functional textiles
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Films and Functional Polymers



#### **Business Division Policy**

This business segment comprises the films and functional polymer products business units. We provide specialty products to match market needs, based on such processing technologies as polymer reforming and functional film production.

#### **Results for Fiscal 2011**

This segment reported major increases in sales and earnings year on year along with the expansion in the volume of products supplied to the advanced information terminal, automobile, and other industries.

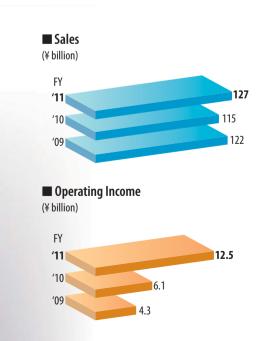
#### **Strategies and Topics**

#### Development of the "VYLOAMIDE" biomass highmelting point polyamide resin

Facilities for the production of "VYLOAMIDE", a new polyamide resin made from biomass of French company Arkema, went into operation at the end of March 2011. "VYLOAMIDE" features the use of biomass material, a high-melting point, and low water absorbability. Going forward, we will step up the marketing of this resin for use in making LED reflectors, automotive parts, and other items where heat resistance and dimensional stability are required.

#### Global development of the functional polymers businesses

In recent years, in emerging countries, especially China, the unit production of automobiles has expanded. In the engineering plastic and other functional polymer businesses, we have expanded our sales network in China to ensure that we keep in touch with local needs in that country. We plan to establish technical offices in Asia and take other steps to strengthen our capabilities for providing technical support for the development activities of our customers, and we are working to accelerate the expansion of our activities globally.



#### **Industrial Materials**



#### **Business Division Policy**

This segment supplies Toyobo's functional materials, especially such automotive products as airbag fabrics and tire cords, but also including high-performance fibers and environmental products. We are planning for further business expansion as we offer differentiated functional materials related to our key words "environment, lifestyle, and safety" as well as "aggressive expansion in growth markets around the world."

#### **Results for Fiscal 2011**

In this segment, the unit volume of products supplied to the mainstay automotive and environment industries increased, and, as a consequence, this segment reported substantial gains in revenue and earnings year on year.

#### **Strategies and Topics**

#### Developing our airbag fabric business in China

The automobile market in China is forecast to expand



at a rate of 20% annually, and many car manufacturers have entered the market, including not only Japanese but also European and U.S. companies. We have, therefore, established a joint venture in China for the manufacturing and marketing of airbag fabrics. Production is scheduled to begin at the joint venture's plant in April 2012.

#### Expansion of "Dyneema" production capacity

We manufacture ultra-high-strength polyethylene fiber "Dyneema" in our joint venture Nippon Dyneema Co., Ltd., which we established together with Dutch company Royal DSM N.V. This fiber is used in a wide range of items, including safety goods, such as protective gloves and helmets, as well as in mooring cables for ships and fishing lines.

Nippon Dyneema began operations at a new production facility in June 2010, and its annual capacity has now increased 1.5 times, to 2,400 tonnes.

#### Life Science



#### **Results for Fiscal 2011**

Demand remained firm for the products and services of the businesses of this segment. which include enzymes for diagnostic reagents and the contract manufacturing of pharmaceuticals. However, because of the impact of foreign currency factors, revenues and earnings declined year on year.

#### **Business Division Policy**

This segment provides products and services to the medical services, healthcare, and well-being markets. It covers the hollow fiber membranes for artificial kidneys and water treatment membranes businesses that developed from Toyobo's polymer processing technologies, the bioproducts business derived from our fermentation and purification technologies, and the contract manufacturing of pharmaceuticals. We are actively pursuing expansion in these stable, growth fields, which are less impacted by fluctuation in the economy.

#### New fermentation tank installed at the Tsuruga bioplant

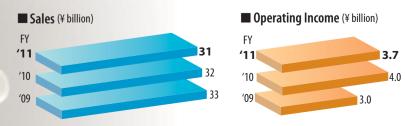
Toyobo produces and markets enzymes that allow patients to self-monitor their blood glucose as well as enzymes for clinical diagnostic reagents. Toyobo holds the leading market share in Japan for diagnostic reagents. In June 2010, we installed a new, 30-ton capacity fermentation tank and thereby expanded our production capacity twofold.

#### **Strategies and Topics**

#### "HOLLOSEP" reverse osmosis (RO) membranes selected for the Jeddah RO-3 Desalination Plant

Toyobo's RO membranes for seawater desalination were selected at the Jeddah RO-3 desalination plant that is being constructed on the Red Sea coast of Saudi Arabia. The plant will have a daily capacity of 260,000 cubic meters and is expected to begin operation in March 2013. The capacity of the plant will be the largest of any plant using RO membranes in the Gulf Coordination Council (GCC) countries.

As a result, in addition to the enzymes supplied thus far, we are now in a position to supply cosmetics ingredients as well. We have positioned the field of life science as a support for our growth going forward, and we are aiming to make effective use of this new fermentation facility to substantially expand our bio-based businesses.



#### **Textiles**



#### **Results for Fiscal 2011**

Revenues in this segment decreased as earnings rose because of Toyobo's continued scaling back of products in this segment and also due to weakness in personal consumption in Japan.

#### **Business Division Policy**

This segment has driven its growth by expanding a range of uses of its high-value-added, high functional fabrics, which make use of Toyobo's technology, to include sports apparel, inner wear, and Arabic traditional menswear of the Middle East (thoub). In addition, based on its policy of emphasizing the efficiency of asset usage, this segment has reduced its business activities in commodity products and low-margin fields, while stabilizing profitability by focusing on high-functional fabrics.

#### **Strategies and Topics**

#### Development of new product "SILFINEYELL"

In general, down wear emphasizes lighter weight, through the use of a lighter outer fabric, and its *DOWNPROOF* property, which prevents down feathers from escaping from the garment. The distinguishing feature of "SILFINEYELL" is its *DOWNPROOF* property, which is achieved through the use of several stacked layers of nylon fibers with Y-shaped cross sections. In tests conducted by the International Down and Feather Laboratory (IDFL), the U.S. inspection organization, it has been confirmed that "SILFINEYELL" retains its *DOWNPROOF* properties even after machine washing. Also, in South Korea, with its large outdoor clothing market, this *DOWNPROOF* property is being emphasized especially, and expansion in sales is expected.



#### **Strategies and Topics**

# Development Topics



Director **Corporate Officer Business Development Planning Office** Research Center, Intellectual Property Department

Toyobo has developed and applied its core technologies, including polymerization, modification, and processing as well as biotechnology, in a wide range of fields and has developed category-leading products that it supplies around the world. Examples are hollow fiber membranes for seawater desalination and for artificial kidneys, reagents for research, high-transparency polyester film, high-performance fibers, and the co-polyester "VYLON" series. These products have made major contributions to the expansion of Toyobo's business activities. In the future development of its overseas operations, Toyobo will engage in product development that responds agilely to the needs of local markets and, thereby, strive to further develop its business activities.

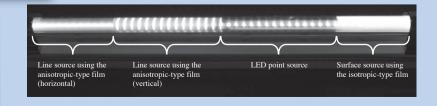
#### oyobo Begins Sales of High-Functional Polyester Films for a Range of Uses in **Photovoltaic Cells**

Toyobo has developed various types of polyester (PET) films, such as "SHINEBEAM" for photovoltaic backsheets as well as PET film sealant materials for the electrical insulation layer. Note that "SHINEBEAM" is a film made from polyester manufactured using "TOYOBO GS Catalyst", a heavy-metal free catalyst developed originally by Toyobo. It is both highly durable and eco-friendly.

("TOYOBO GS Catalyst": Refer to page 31.)

#### evelopment of Diffusion Film for **LEDs Featuring Both High Light Transmittance and Diffusibility**

Drawing on its original combination of polymer formulation and film manufacturing methods, Toyobo has developed a diffusion film for LEDs that has high light transmittance and efficient light diffusibility. LEDs offer a number of advantages, including low electric power consumption and a long useful lifetime. In addition, mass production technology for LEDs has already been well established, and since they can be manufactured in large quantities, users are shifting to LEDs for illumination. Looking ahead, these devices are expected to find application not only for general-purpose lighting but also in other fields, such as display devices.



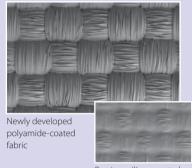
#### urther Expanding the Marketing of High-Melting-Point **Polyamide Manufactured Using Biomass**

Toyobo has concluded a business alliance agreement with Arkema of France for the production and sales of "VYLOAMIDE", a new polyamide that is manufactured using biomass materials. The principal features of "VYLOAMIDE" are that it has a high-melting point and low water absorption properties. Toyobo develops the markets for this product, which will include the electrical, electronics, and automotive fields where heat resistance and dimensional stability are needed.

#### evelopment of Recyclable **Coated Fabric for Airbags**

Toyobo has developed a new coated fabric for airbags that is recyclable. This fabric is coated with a polyamide in place of the silicone. As a result, the new coated fabric can be used again as polyamide without separating the fabric and the coated resin.

(Refer to page 17.)



Previous silicon-coated fabric

#### iagnostic Systems

(1) Automated gene analyzer "GENECUBE" and dedicated reagents for rapid tuberculosis gene analysis

Toyobo has developed a diagnostic system that can detect Mycobacterium tuberculosis (MTB) and nontuberculous mycobacteria (NTM) through gene analysis. Proper identification of whether the infection is from MTB or NTM can only be made through genetic analysis. Toyobo has applied its original technology that it has developed in the field of reagents for genetic research to develop the automated gene analyzer "GENECUBE." Using this system, the time previously required for analysis has been shortened to about 40 minutes, and it is expected to contribute to enabling the early detection and prevention of the spread of tuberculosis.





(2) Development and launching of "POCube" compact chemiluminescent automatic analyzer and dedicated regeants that cut the previous times necessary for the analysis of influenza and RS virus infections in half

The principal features of "POCube" are (1) reduction in testing time by about half the previous amount of time and (2) high accuracy. Particularly in the case of influenza virus infections, distinguishing between A and B viral strains is difficult. Also, this product is effective in diagnosing RS virus infections, which may become quite serious among infants and others, including older persons, who have reduced immunity. A single "POCube" diagnostic system can be used to detect these infections by changing the dedicated reagent. Going forward, Toyobo will work to strengthen and expand its lineup of diagnostic reagents.







#### For companies to survive and grow, they must change with the operating environment and introduce new products suited to the times. The key to this change is new product development.

One example we can cite is in the industrial film field. Toyobo has high market shares in films for use in LCDs and flat panel displays, but, next, Toyobo is developing backsheets for touch panels and solar batteries. Also, in

#### **Strategies and Topics**

#### **Product** Portfolio

(New Products)

the case of the industrial adhesive "VYLON", Toyobo has identified the product life cycle and is shifting the composition of its product portfolio.

Looking ahead, Toyobo will draw on

the technology it has developed thus far, and, by integrating its development, manufacturing, and sales activities, is developing and proposing new products that are in line with market trends. Also, Toyobo is aggressively developing technologies by collaborating with outside partners.

#### **Development of Filters for Removal of Radioactive Iodine**

The Toyobo's VOC emissions treatment equipment, which employs activated carbon fiber "K-FILTER", has been adopted in many manufacturing processes that use organic

solvents. At present, "K-FILTER" holds a large share of the market for emissions treatment equipment using the adsorptive method.

Toyobo is developing and marketing filters for use in office equipment, aircleaner filters, and filters for automobiles and other applications. In addition, Toyobo has developed filters for

removal of radioactive iodine that rely on the special characteristics of "K-FILTER". Compared with granular active carbon, these filters weigh only above one-seventh as much and their volume can be reduced to less than one-tenth after incineration. These filters find application in hospitals and research



Akira Kuwabara General Manager AC Material Department

power plants.

\*Special characteristics of "K-FILTER" include (1) rapid adsorption of solvents in large volumes, (2) little deterioration in adsorption capabilities even after repeated desorption, and (3) a shorter desorption time than with granular activated carbon fiber.

#### **Bio-Businesses Continue to Evolve**



Yasuo Ohta. Ph.D. Deputy Director Biochemical Department Biotechnology Development

In recent years, as a result of rising living standards, the number of diabetes patients has been rising not only in the industrialized countries but also in the developing nations. As a result, the diagnostic domain for treating and preventing diabetes is expanding rapidly around the world.

In 1990, Toyobo developed an

enzyme for the self-monitoring of blood glucose sensors, and, in 2000, Toyobo applied gene recombinant technology to increase the sensitivity of this enzyme and thereafter launched the second generation of this enzyme. Then, in

2009, Toyobo developed the third-generation diagnostic enzyme in this series, "FAD-GDH," which enables the even more accurate measurement of blood glucose levels, and is currently implementing a switchover from the second-generation enzyme.



At present, Toyobo has a top-class global market share in the enzyme business for diagnostic usage.

By making use of the bio-organism cultivation and other technologies it has developed in the enzyme business, Toyobo is expanding further into diagnostic systems, materials for cosmetics, and other fields.

#### **Corporate Governance**

The Toyobo Group, to respond to the changing times and enhance sustainable corporate value, has established the policies of (1) ensuring timeliness and accuracy in decision making, (2) ensuring transparency in management, and (3) emphasizing fairness. Based on these principles, we are working to create and strengthen our corporate governance structure.

#### **Toyobo's Governance Structure**

Toyobo, as a "Company with Auditors" as defined by Japan's Companies Act, appoints one outside director to its 10-member Board of Directors, and has adopted the Executive Officer System to clearly separate decision making and the oversight function from business execution. The term of office for a director

is set at one year to clarify the responsibility of that director.

The auditing structure consists of four auditors, two of whom are outside auditors. Auditors attend meetings of the Board of Directors and other important meetings and provide their opinions,

Antitakeover measures were renewed at the **Regular General Meeting** of Shareholders held on June 29, 2011.

as well as oversee the business execution of directors through such means as operational audits of each division.

Regarding outside directors and auditors, the Company has appointed three outside officers from other companies who have no material transactions with the Company and are independent. Under this system, the outside officers are able to supervise and audit the conduct of management by the directors. The names of two of these independent officers, one outside director and one outside auditor, have been registered, as specified by the Tokyo Stock Exchange and the Osaka Securities Exchange.

#### **Risk Management** Structure

Toyobo has established the Planning Council and Management Council under the Board of Corporate Executive Officers. These bodies examine any significant new business proposals, investments, or other initiatives prior to their implementation, and take steps to manage any business risks.

#### Strengthening of **Group Governance**

Under the Company's governance system, Group companies are organized by the Corporate Planning Division to promote corporate governance from a Companywide perspective.

#### **Compliance Structure**

Toyobo has also formulated the Toyobo CSR Charter and the Toyobo Corporate Code of Conduct, and taken steps to ensure that the rules are universally understood.

# Sustainability

#### SR Is the Foundation of **Corporate Activities.**

Toyobo marked the 129th anniversary of its establishment during the year under review. The reasons why Toyobo has been able to continue its operations for more than 100 years is that it has reformed its business portfolio in response to changes in the business environment and, most of all, that it has retained the trust of society for a long period.

Toyobo's corporate principle is Jun-ri-Soku-yu ("Adhering to

Reason Leads to Prosperity"). This principle encourages us to make decisions by considering both logical ideas and corporate ethics, and then acting accordingly. To achieve sustained increases in its corporate value, Toyobo works to "strengthen its Group governance" and "enhance its risk management and compliance systems."

Toyobo is also aware that taking initiatives to preserve the environment is an important issue and is implementing environmentally minded measures. Going forward, Toyobo will work to adapt to the needs of the times and behave responsibly as a member of society.

#### "Jun-ri-Soku-yu"

the personal motto of Toyobo's founder, Eiichi Shibusawa





The ancient proverb Jun-ri-Soku-yu ("Adhering to Reason Leads to Prosperity") was one of the personal mottos of Toyobo's founder, Eiichi Shibusawa, and is the fundamental principle for Toyobo today. This calligraphy of that phrase was drawn by him nearly 80 years ago. Eiichi Shibusawa was one of the modernizers of Japan during the early 20th century, helping to found and develop more than 500 companies. The phrase Jun-ri-Soku-yu is composed of four Chinese characters, the second of which ("ri") has the dual meaning of "reason" and "ethics." It expresses the idea of thinking and acting rationally and logically, as well as the need to retain respect for morality and ethics, the fundamental nature of being human, and an ethical sense of values.

#### rawing on the **Capabilities of Diverse Human** Resources

The Company implements evaluations and provides employment terms that emphasize ability, without regard for gender, nationality, and other personal characteristics, while also working to create a corporate culture that enables a diverse range of human resources to be active in work areas they feel are worthwhile. In addition, senior employees who have reached the retirement age of 60 years continue to contribute by training younger employees and transmitting technology.

#### "TOYOBO GS Catalyst" Received the 2010 Best Practices Award (Award) from Frost & Sullivan\* (F&S).

Toyobo was selected the winner of the Best Practices Award, which are "companies that excel in their industries and offer innovative products", based on interviews with analysts, analysis, and secondary research.

"TOYOBO GS Catalyst" is the world's first aluminum-based polyester catalyst. The principal features of products made from GS Catalyst are (1) it is highly transparent, (2) has the same moldability as other polyester catalysts, and (3) has strong resistance to water and heat.



This product has a wide range of possible uses, including PET bottles, films, fiber, and various types of molded products.

\*F&S Best Practices Award: F&S was established in 1961, and, with its headquarters in the United States, is a leading company in the fields of international marketing, market research, and consulting.

#### Toyobo's Reverse Osmosis (RO) Membranes Became the First in Japan to Be Granted the "Biomass Mark" for Use on Its Seawater **Desalination RO Membranes.**

Toyobo's RO membranes are plant-derived products that are made of cellulose triacetate, which is made from the cellulose that plant cells are composed of.

The receipt of the Biomass Mark indicates that Toyobo's RO membranes have been recognized as eco-friendly products. These products received the Biomass Mark from the Japan Organics Recycling Association (JORA) in June 2010 as product "No. 100002" to qualify for the mark.



#### CO<sub>2</sub> emissions

Toyobo has reached its objective for reducing CO2 emissions volume (which was to make a 10% cut in comparison with fiscal 1994), and in fiscal 2011 on a non-consolidated basis, Toyobo has reduced these emissions to 801,200 tons annually, compared with 912,600 tons in fiscal 1994.

#### **Establishing a "TOYOBO" Brand** that People Will Trust

We always consider the customer's standpoint, and with each employee thoroughly committed to putting quality first, and, giving consideration to safety, the environment, and the protection of information, develop and provide products and service that are useful to society.

#### Social Responsible **Investment**

We were selected for inclusion in the FTSE4Good Index.







#### Management As of June 29, 2011

#### **Board of Directors**



President Ryuzo Sakamoto



Director Kenji Hayashi



Director Fumiaki Miyoshi



Director Hiroyuki Kagawa



Director Kazuo Kurita



Director Masaaki Sekino



Director Kazumasa Kouyama



Director Hiroshi Takahashi



Director Seiji Narahara



Director Michio Ogimura\*

\*Outside Director

#### **Board of Corporate Auditors**

Kazuyuki Yabuki Setsuo Shimomichi Hiroshi Nishiura\*\* Hiroshi Imanaka\*\*

\*\* Outside Corporate Auditor

#### **Corporate Officers**

- Chief Operating Officer Ryuzo Sakamoto
- Corporate Senior Executive Officers Kenji Hayashi Fumiaki Miyoshi
- Corporate Executive Officers Hiroyuki Kagawa Kazuo Kurita Kanji Aono Yukihiro Sogabe
- Corporate Officers Masaaki Sekino Kazumasa Kouyama Hiroshi Takahashi Shinichi Onizuka Toshiyuki Matsui Hiroshi Takabayashi **Kunio Yano** Kensho Sugi Shigeki Sano Seiji Narahara Hisao Nishinaka Toshitake Suzuki Hiroyuki Sato Jiro Suwa

#### Investor Information (As of March 31, 2011)

#### Stock Listings

Tokyo, Osaka

#### Stock Code

3101

#### Transfer Agent

The Chuo Mitsui Trust and Banking Co., Ltd.

3-33-1, Shiba, Minato-ku, Tokyo 105-8574, Japan

#### Independent Auditors

KPMG AZSA & Co. 3-6-5, Kawara-machi, Chuo-ku,

Osaka 541-0048, Japan

#### Common Stock

Authorized: 2.000.000.000 shares Issued: 890.487.922 shares

#### Paid-in Capital

¥51,730 million

#### Number of Stockholders

103.768

#### Major Stockholders

(10 largest stockholders)

	Number of shares held (thousands)	Percentage of voting rights (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	35,494	3.99
The Master Trust Bank of Japan, Ltd. (Trust Account)	30,785	3.46
Nippon Life Insurance Company	21,885	2.46
Toyukai (Contractor Share Holding)	14,424	1.62
Mizuho Corporate Bank, Ltd.	13,393	1.50
Nomura Singapore Limited Customer Segnegated A/C FJ-1309	13,314	1.50
The Bank of Tokyo–Mitsubishi UFJ, Ltd.	13,214	1.48
Sumitomo Mitsui Banking Corporation	13,034	1.46
Meiji Yasuda Life Insurance Company	11,029	1.24
Toyobo Employee Stockholders' Association	11,013	1.24

#### Corporate Data (As of March 31, 2011)

#### Head Office

2-8, Dojima Hama 2-chome, Kita-ku, Osaka 530-8230, Japan Telephone: +81-6-6348-3111

#### Established

May 1882

#### Number of Employees

3,238 (Nonconsolidated) 10,178 (Consolidated)

#### Branches

#### **Tokyo Branch**

Higashi-Gotanda Square Building, 10-2, Higashi Gotanda 2-chome, Shinagawa-ku, Tokyo 141-8633, Japan

#### Nagoya Branch

2-3, Sakae 3-chome, Naka-ku, Nagoya 460-0008, Japan

#### Research Center

1-1, Katata 2-chome, Otsu, Shiga 520-0292, Japan

#### Overseas

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950 Third Ave., 17th Floor, New York, NY 10022, U.S.A. Telephone: +1-212-317-9245

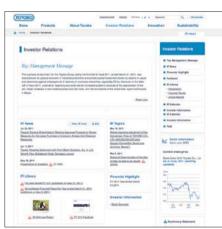
#### Toyobo Co., Ltd. China Office

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Telephone: +86-21-6270-7535/7536

#### Toyobo Co., Ltd. Europe Office

Klosterstrasse 18, 40211 Dusseldorf, Germany Telephone: +49-211-976229-0



http://www.toyobo-global.com/ir/

#### TOYOBO CO., LTD.

2-8, Dojima Hama 2-chome, Kita-ku, Osaka 530-8230, Japan Telephone: +81-6-6348-3111 URL http://www.toyobo-global.com/

#### **INVESTOR RELATIONS**

Telephone: +81-6-6348-3044 E-mail: ir\_g@toyobo.jp