

Business Results for 1Q(Three months) of FYE 3/2023

August 5th, 2022

STELLA CHEMIFA CORPORATION

Securities code: 4109

【Business Results】

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(Corporate Profile • Introduction of Our Business)

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[1Q(Three months) of FYE 3/2023 Results]

- ◆ Both domestic and overseas sales of Semiconductors increased year on year.
- ◆ The price of anhydrous hydrofluoric acid(AHF), a key raw material, rose year on year.
- ◆ Equity method affiliates in China performed well due to surging prices of electrolytes for lithium-ion secondary batteries in the Chinese market, resulting in recording equity method investment income.

[Full-year Forecast]

- ◆ It is expected that an extraordinary profit of more than 1.2 billion yen will be recorded in 2Q due to the sale of investment securities held (1 unlisted security).
- ◆ We will pay close attention to how earnings will be affected by uncertainties such as the price of anhydrous hydrofluoric acid(AHF) and trends in foreign exchange rates.

Financial Summary



(million yen)	1Q (Three months) of FYE 3/2022	1Q (Three months) of FYE 3/2023	Increase/ Decrease	Percentage Increase/ Decrease
Sales Revenue	8,896	9,764	867	9.8
Gross Profit	2,297	2,163	-134	-5.8
Operating Profit	1,291	1,291	-0	-0.0
Ordinary Profit	1,282	1,783	500	39.1
Quarterly Profit Attributable to Owners of Parent	802	1,295	492	61.4
Earnings Per Share (yen)	62.66	103.55		
Capital Expenditures	332	1,026	694	209.2
Depreciation & Amortization	663	663	-0	-0.1
Research & Development Expenses	170	123	-47	-27.9

Sales Revenue and Operating Profit by Business Segment

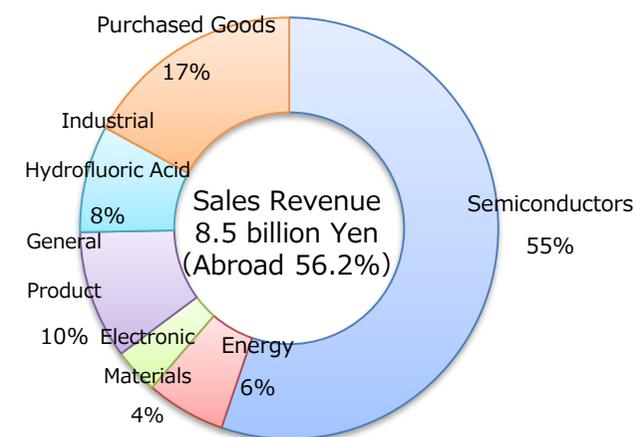


(million yen)	Sales Revenue				Operating Profit			
	1Q (Three months) of FYE 3/2022	1Q (Three months) of FYE 3/2023	Increase/ Decrease		1Q (Three months) of FYE 3/2022	1Q (Three months) of FYE 3/2023	Increase/ Decrease	
			Amount	%			Amount	%
High-Purity Chemical Business	7,708	8,577	868	11.3	1,401	1,135	-265	-19.0
Transportation Business	1,141	1,146	5	0.5	193	154	-38	-20.1
Medical Business	7	-	-7	-	-182	-	182	-
Other	38	40	1	4.0	2	3	1	68.1
Eliminations and Corporate	-	-	-	-	-123	-2	120	-
Total	8,896	9,764	867	9.8	1,291	1,291	-0	-0.0

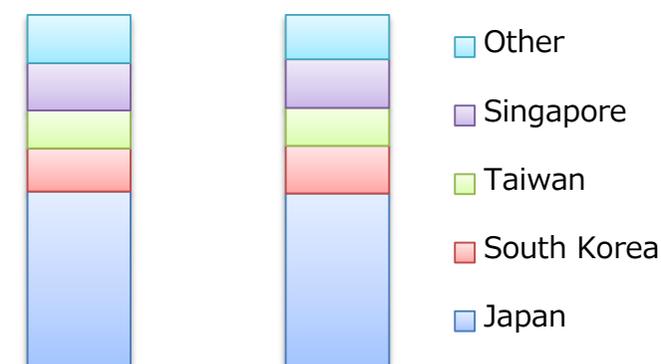
Sales Revenue of High-Purity Chemical Business (Breakdown)

(million yen)	1Q (Three months) Of FYE 3/2022	1Q (Three months) Of FYE 3/2023	Increase/ Decrease	Percentage Increase/ Decrease
Semiconductors	4,191	4,738	547	13.1
Energy	992	527	-465	-46.9
Electronic Materials	270	297	27	10.1
General Products	546	844	298	54.6
Industrial Hydrofluoric Acid	881	704	-177	-20.1
Purchased Goods	826	1,465	638	77.2
Total	7,708	8,577	868	11.3

Sales Revenue Constituent Ratio
Of High-Purity Chemicals



Semiconductors Shipping Ratio by Country



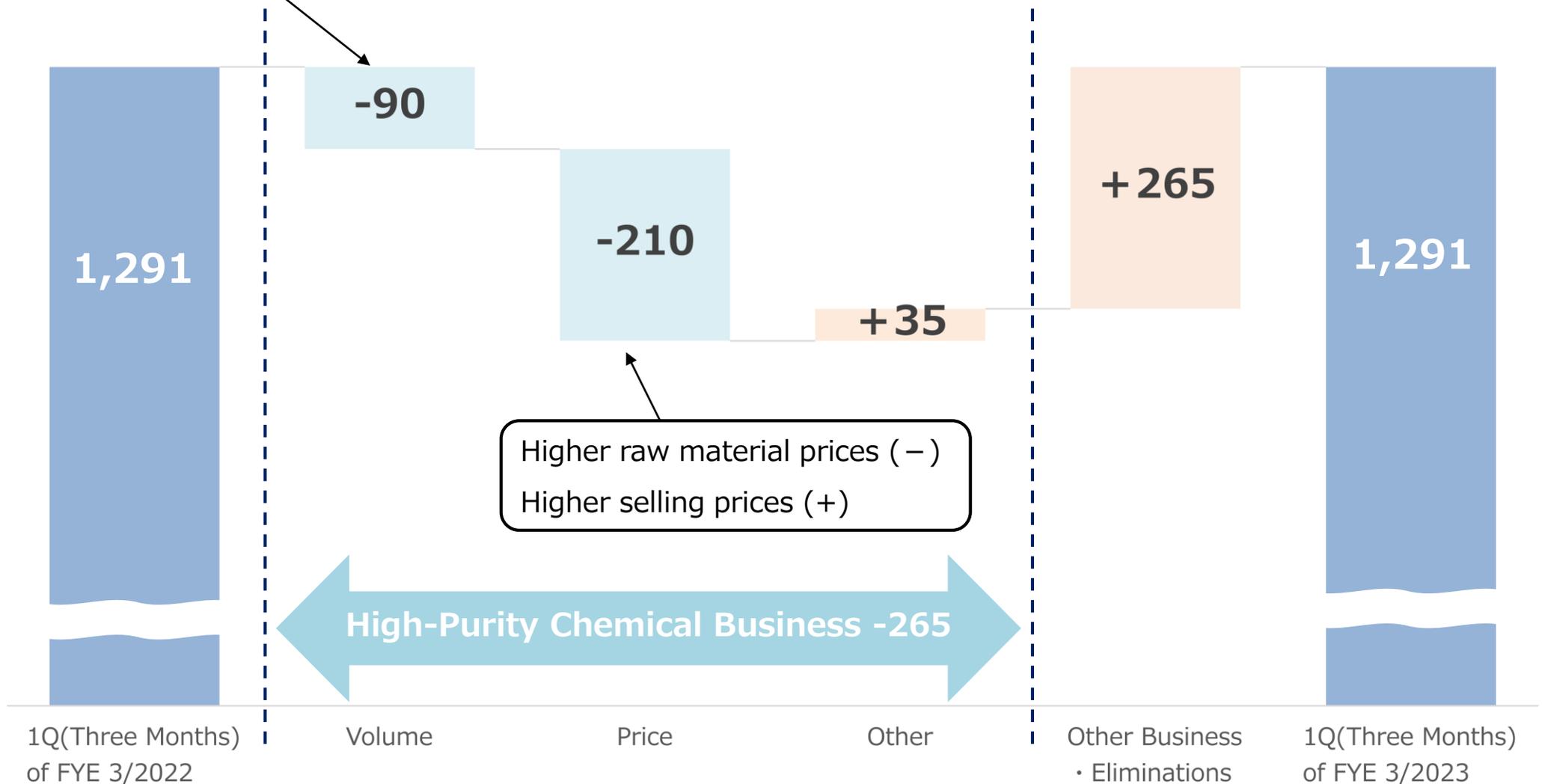
1Q(Three months) of FYE 3/2022 1Q(Three months) of FYE 3/2023

Analysis of Operating Profit (Year on year)

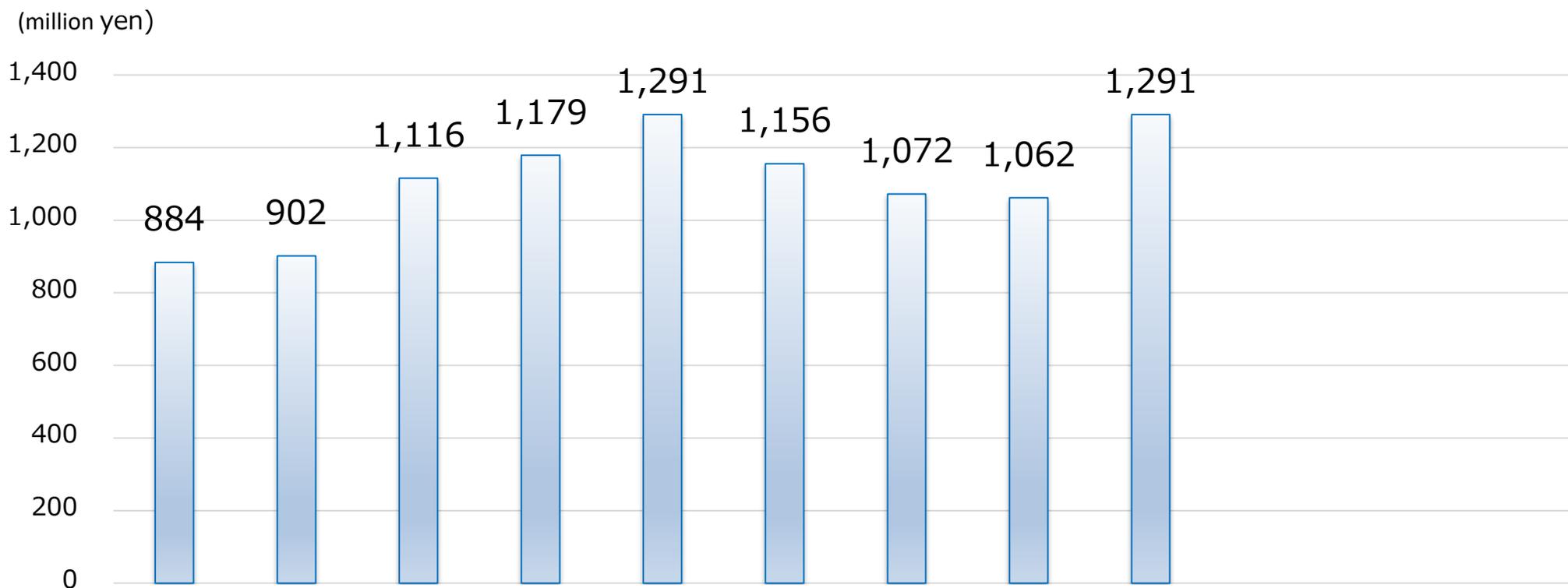


Including decreased shipments of Energy Business (-)/
increased shipments of Semiconductors Business (+)

(million yen)



Change of Quarterly Operating Profit



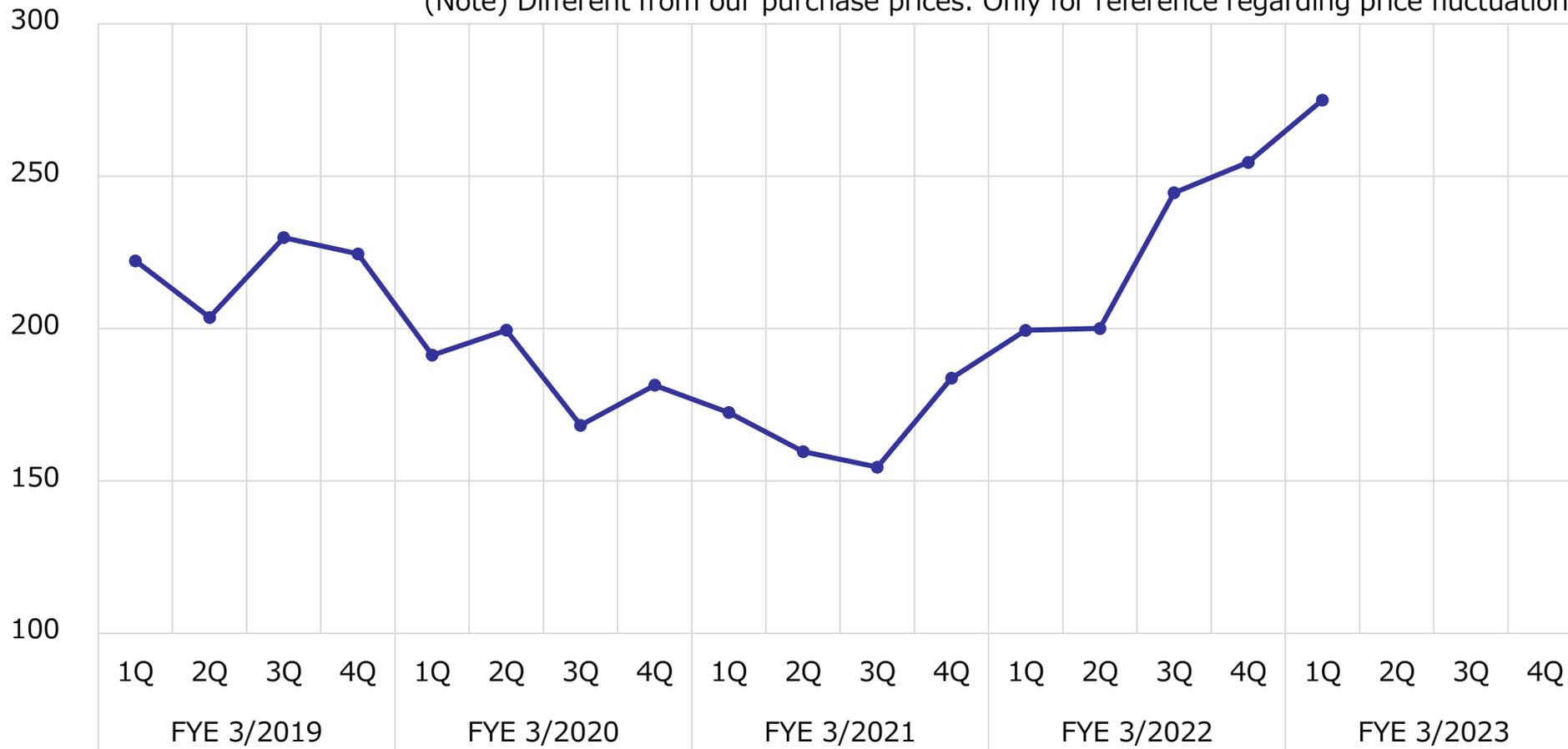
	FYE 3/2021				FYE 3/2022				FYE 3/2023			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Sales Revenue	8,222	8,389	8,315	7,965	8,896	9,212	9,015	10,171	9,764			
Operating Profit	884	902	1,116	1,179	1,291	1,156	1,072	1,062	1,291			
Operating Profit Margin	10.8%	10.8%	13.4%	14.8%	14.5%	12.5%	11.9%	10.4%	13.2%			

Transitions in Trade Statistics Value of Anhydrous Hydrofluoric Acid(AHF)



(yen/kg)

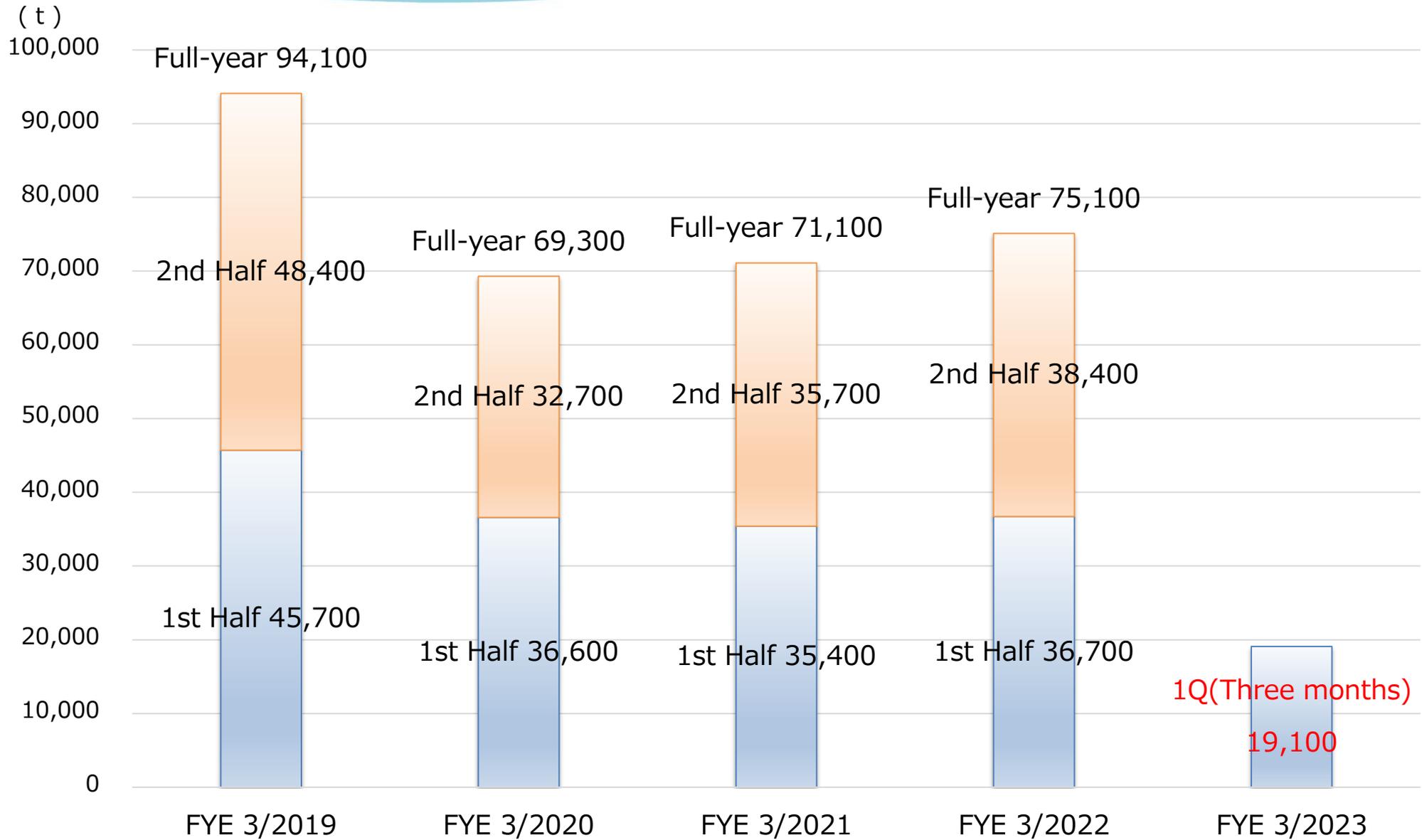
(Note) Different from our purchase prices. Only for reference regarding price fluctuations.



(yen/kg)	FYE 3/2019	FYE 3/2020	FYE 3/2021	FYE 3/2022	FYE 3/2023 1Q
Average Price	220	186	168	225	275

Source: Prepared by our company based on the Ministry of Finance's "Trade Statistics of Japan" (<http://www.customs.go.jp/toukei/info/>)

Change of Shipping Volume of High-Purity Hydrofluoric Acid (Semiconductors)



Balance Sheet



(million yen)	FYE 3/2022 End-of-Year	Jun.30,2022	Increase/ Decrease	Percentage Increase/ Decrease
Assets	56,598	56,495	-102	-0.2
Cash and deposits	15,895	16,190	294	1.9
Operating receivables	8,642	8,374	-268	-3.1
Inventory assets	5,271	4,252	-1,018	-19.3
Property, plant, and equipment	21,667	22,273	605	2.8
Intangible assets	375	347	-28	-7.5
Liabilities	13,869	12,484	-1,385	-10.0
Operating liabilities	3,522	3,470	-51	-1.5
Interest-bearing liabilities	5,594	5,222	-372	-6.7
Net Assets	42,728	44,011	1,282	3.0
Equity capital	42,170	43,446	1,276	3.0
Liabilities and Net Assets	56,598	56,495	-102	-0.2

Financial Forecast



(million yen)	FYE 3/2022 Actual	FYE 3/2023 Forecast	Increase/ Decrease	Percentage Increase/ Decrease
Sales Revenue	37,296	37,500	203	0.5
Operating Profit	4,583	4,600	16	0.4
Ordinary Profit	5,707	5,800	92	1.6
Profit Attributable to Owners of Parent	5,364	4,200	-1,164	-21.7
Earnings Per Share (yen)	422.97	335.63		
Dividend (yen)	60	60		
ROE (%)	13.7	9.6		
Capital Expenditures	2,648	4,900	2,251	85.0
Depreciation & Amortization	2,713	2,500	-213	-7.9
Research & Development Expenses	744	600	-144	19.4

Forecast on Sales Revenue and Operating Profit by Business Segment



(million yen)	Sales Revenue				Operating Profit			
	FYE 3/2022 Actual	FYE 3/2023 Forecast	Increase/ Decrease		FYE 3/2022 Actual	FYE 3/2023 Forecast	Increase/ Decrease	
			Amount	%			Amount	%
High-Purity Chemical Business	32,330	32,930	599	1.9	4,776	3,990	-786	-16.5
Transportation Business	4,676	4,370	-306	-6.6	764	570	-194	-25.5
Medical Business	100	-	-100	-	-729	-	729	-
Other	189	200	10	5.6	20	30	9	43.2
Eliminations and Corporate	-	-	-	-	-248	10	258	-
Total	37,296	37,500	203	0.5	4,583	4,600	16	0.4

Change in Classification of High-Purity Chemical Business

In the High-Purity Chemical Business, we have used nine categories for presentation. However, in light of the current business strategy and business scale, we will change the number of categories to six as shown in the following table from the fiscal year ending March 2023.

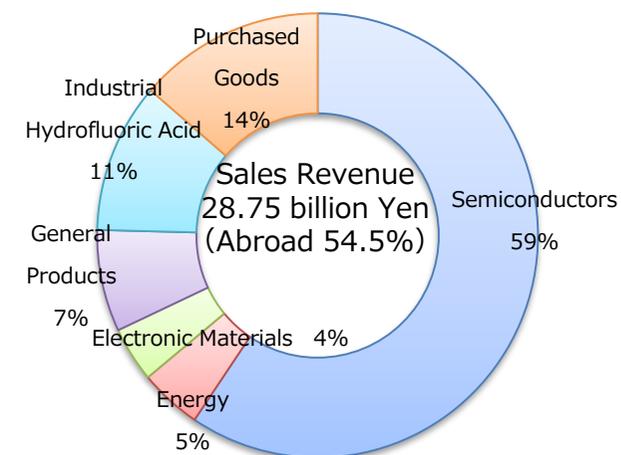
New categories in High-Purity Chemical Business (from the fiscal year ending March 2023)

New categories (six)	New categories in detail	(Reference) Old categories
Semiconductors	High-purity Hydrofluoric Acid for Semiconductors/LCDs	Semiconductors/ LCDs
Energy	Fluoride materials for batteries	Batteries
	Enriched Boron	General Products
Electronic Materials	Fluoride materials for raw materials used for semiconductor devices/capacitors	Semiconductor Devices
	R&D Products (Phosphor materials etc)	General Products
General Products	Fluoride materials for catalysts	Catalysts
	Fluoride materials for toothpaste (Tin Fluoride)	General Products
	Other Fluoride materials	General Products
Industrial Hydrofluoric Acid	Hydrofluoric Acid for surface treatment	Surface Treatment
	Anhydrous Hydrofluoric Acid for alternatives for CFCs	Alternatives for CFCs
	Gypsum	Gypsum
Purchased Goods	Anhydrous Hydrofluoric Acid for alternatives for CFCs(Purchase & Sale)	Alternatives for CFCs
	Purchased Goods	Other

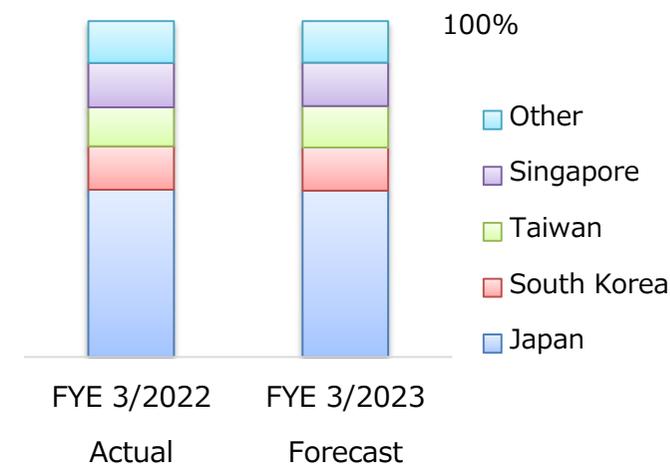
Forecast on Sales Revenue of High-Purity Chemical Business (Breakdown)

(million yen)	FYE 3/2022 Actual	FYE 3/2023 Forecast	Increase/Decrease	Percentage Increase/Decrease
Semiconductors	17,859	19,570	1,710	9.6
Energy	3,121	1,500	-1,621	-51.9
Electronic Materials	1,280	1,320	39	3.1
General Products	2,246	2,440	193	8.6
Industrial Hydrofluoric Acid	3,919	3,600	-319	-8.1
Purchased Goods	3,904	4,500	595	15.3
合計	32,330	32,930	599	1.9

Sales Revenue Constituent Ratio of High-Purity Chemicals



Semiconductors Shipping Ratio by Country



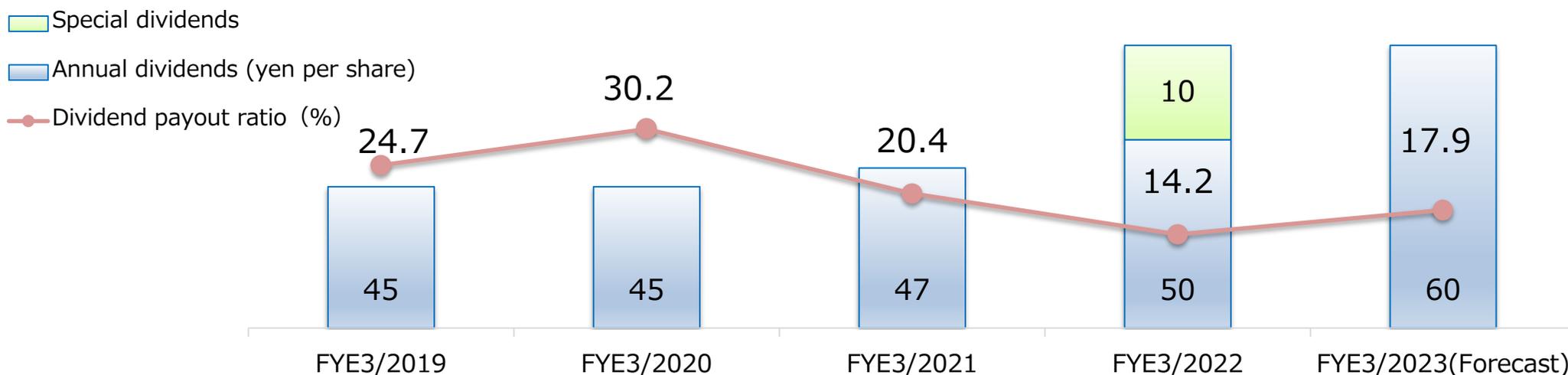
Shareholder Return



Stella Chemifa's basic policy is to provide stable and continuous dividend payments, giving comprehensive consideration to factors including its financial condition and profit level. Retained earnings will be allocated to capital investment and R&D investment, and will be proactively utilized for future business development to enhance corporate value.

- ◆ FYE3/2022
 - Annual dividend: 60 yen per share (Annual dividends 50yen,Special dividends 10yen)
 - The Company repurchased 300,000 of its own shares, worth 840 million yen.

- ◆ FYE3/2023
 - Annual dividend forecast: 60 yen per share



Reference Material

(Corporate Profile • Introduction of Our Business)

Corporate Profile



(as of June 30, 2022)

Corporate Name	STELLA CHEMIFA CORPORATION	
Head Office	Meiji Yasuda Seimei Osaka Midosuji Bldg. 10F, 4-1-1 Fushimi-machi, Chuo-ku, Osaka City, Osaka	
Founded/Established	February 1916 / February 1944	
Capital Fund	4,829,782,512 yen	
Representatives	Representative Director, President and Chief Executive Officer: Aki Hashimoto Representative Director, Senior Managing Director (Products Management Group): Kiyonori Saka	
U R L	https://www.stella-chemifa.co.jp/english/	
Number of Employees	289	
Sales Department	Osaka Sales Department (Chuo-ku, Osaka city, Osaka) Tokyo Sales Department (Chiyoda-ku, Tokyo)	
F a c t o r y	Sanpo Factory (Sakai-ku, Sakai City, Osaka) Izumi Factory (Izumiotu City, Osaka) Kitakyushu Factory (Yahatanishi-ku, Kitakyushu City, Fukuoka)	

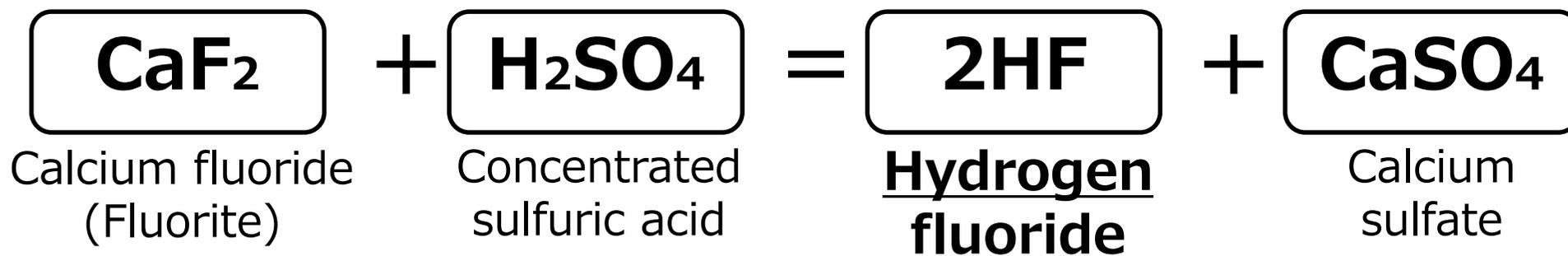
At home (3 companies)

Transportation Business	BLUE EXPRESS, Inc.	Sakai-ku, Sakai City, Osaka
Other Business	BLUE AUTO TRUST Co., Ltd.	Sakai-ku, Sakai City, Osaka
Medical Business	STELLA PHARMA CORPORATION	Chuo-ku, Osaka city, Osaka

Abroad (6 companies)

High-Purity Chemical Business	STELLA CHEMIFA SINGAPORE PTE LTD	Singapore
Transportation Business	STELLA EXPRESS (Singapore) PTE LTD	Singapore
High-Purity Chemical Business	Blue Express (Shanghai) International Trade Inc.	China
Transportation Business	Blue Express (Shanghai) International Freight Forwarding Co., Ltd.	China
High-Purity Chemical Business	Zhejiang Blue Star Chemical Co., Ltd.	China
High-Purity Chemical Business	Quzhou BDX New Chemical Materials Co., Ltd.	China

Manufacture and applications of hydrogen fluoride



* There are five main grades of fluorite purity, and for semiconductor applications, high quality fluorite with a purity of 97% or higher is required.

↓
Concrete materials, etc.

Reaction and refinement using our proprietary technology

Treatment of surface such as stainless steel

Raw materials such as alternatives for CFCs

Etching agent for semiconductor liquid crystals

Materials for lithium-ion secondary batteries

Camera lens materials for semiconductor manufacturing equipment

Reaction catalyst
Other products

High-Purity Chemical Business

Semiconductors	<ul style="list-style-type: none"> • Manufacture and sale of chemicals for etching and cleaning in the semiconductor and LCD panel manufacturing processes
E n e r g y	<ul style="list-style-type: none"> • Manufacture and sale of additives to improve the performance of lithium-ion secondary batteries • Manufacture and sale of concentrated boron (boron 10) used for nuclear power and cancer therapy (BNCT)
E l e c t r o n i c M a t e r i a l s	<ul style="list-style-type: none"> • Manufacture and sale of tantalum production aids for tantalum capacitors • Manufacture and sale of raw materials for camera and stepper lenses • Manufacture and sale of R&D products in the small-quantity production stage • Manufacture and sale of raw materials for production of phosphors and phosphors used for LEDs
General Products	<ul style="list-style-type: none"> • Manufacture and sale of a range of chemicals and catalysts for the manufacture of pharmaceutical intermediates, etc. • Manufacture and sale of toothpaste additives to prevent tooth decay and gingivitis • Manufacture and sale of other fluorine compounds
I n d u s t r i a l Hydrofluoric Acid	<ul style="list-style-type: none"> • Manufacture and sale of hydrofluoric anhydride, raw materials for CFCs and fluoropolymers • Manufacture and sale of chemicals used for acid cleaning of stainless steel and slimming of LCD panels
Purchased Goods	<ul style="list-style-type: none"> • Sales of purchased goods

Introduction of Our Business

- Semiconductors -

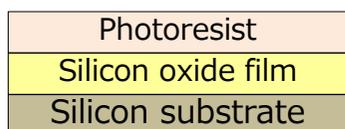
Ultra-High Purification Technology

- Impurity levels of less than 1 ppt (1×10^{-12}) are controlled by ultra-purification and ultra-cleaning technologies
- Mass production of ultra-pure chemicals for ultra-high integrated circuit

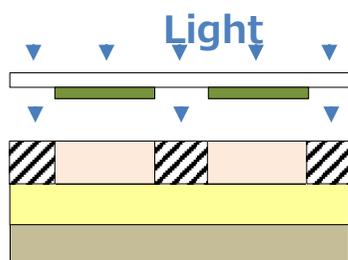
Ultra High Purity Hydrofluoric Acid	<ul style="list-style-type: none">• Hydrofluoric acid (HF) is the only chemical capable of etching out silicon oxide film• Chemical solutions are indispensable to the semiconductor manufacturing process and require ultra-high purity• In particular, dilute hydrofluoric acid is used in a number of semiconductor processes
Ultra High Purity Buffered Hydrofluoric Acid	<ul style="list-style-type: none">• Mixed aqueous solution of hydrofluoric acid (HF) and ammonium fluoride (NH_4F)• Mainly used in processes such as etching and cleaning of insulation films• Chemicals with etch rates ranging from tens of $\text{\AA}/\text{min}$ to thousands of $\text{\AA}/\text{min}$ can be produced

Example of Application (Photolithography Process)

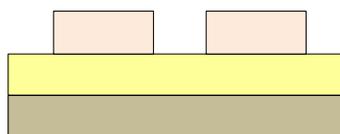
(1) Photoresist coating on silicon wafer (heat drying)



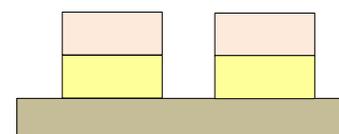
(2) Exposure



(3) Development



(4) Etching (Dissolve silicon oxide film with hydrofluoric acid chemicals)



(5) Photoresist stripping



Introduction of Our Business

- Semiconductors -



Production capacity of High Purity Hydrofluoric Acid for Semiconductors

Kitakyushu Factory



Kitakyushu City, Fukuoka

30,000 t /year

Sanpo Factory



Sakai City, Osaka

65,000 t /year

STELLA CHEMIFA
SINGAPORE



Singapore

10,000 t /year

105,000 t /year

* As a comprehensive manufacturer of fluorine compounds, we use our own technology to do everything from manufacturing to filling.

Introduction of Our Business

- Energy -



Additives

- Additive for electrolytic solution to improve the performance of lithium-ion secondary batteries
- High-temperature endurance • High conductivity • Increased capacity • Low resistance • Flame retardance



Izumi Factory's manufacturing building (Izumiotu City, Osaka)

Lithium Hexafluorophosphate

- High-purity electrolytes for lithium-ion secondary batteries

* Manufacture and sale at our affiliate company in China (Quzhou BDX New Chemical Materials Co., Ltd.)

Example of materials used in lithium-ion secondary batteries

Additives

Positive and negative electrode

Separator

Current collector

Electrolyte

Binder

Protective IC

PTC element



Quzhou BDX New Chemical Materials Co., Ltd. (China)



Enrichment plant
(Izumiotu City, Osaka)

Enriched Boron (Boron-10) and its features

- Natural boron is made up of two isotopes, boron-10(20%) and boron-11(80%)
- Developed technology to enrich boron-10 to over 99%
- Established mass production technology of enriched boron for the first time in Japan(2000)
- Boron-10 has an extremely high capacity to absorb neutrons, and further enriching it can increase its ability to absorb neutrons.

Production capacity

Products		Production Capacity
Enriched Boron	^{10}B	6,000kg
Enriched Boric Acid	$\text{H}_3^{10}\text{BO}_3$	36,000kg
Enriched Potassium tetrafluoroborate	K^{10}BF_4	75,000kg

Applications of Enriched Boron Compounds

- Neutron-absorbing material of spent nuclear fuel transportation and storage containers
- Material of control rods of nuclear reactors and rack material of spent nuclear fuel pools
- Excess reaction control of pressurized-water reactors by dissolving into primary cooling water
- Water source for facilities responding to specific major accidents, etc.
- Raw material for cancer treatment drugs (BNCT: Boron Neutron Capture Therapy)

Advantages of Using Enriched Boric Acid

- (1) Improvement of corrosive environment in nuclear reactors
Required ^{10}B concentration can be secured at 1/5 of natural products.
Operation at low concentration is possible, and corrosion in facilities can be reduced.
- (2) Reduction of storage costs
Heating and heat retention are required to maintain the dissolution of boric acid water. Enriched boric acid realizes the reduction in concentration, and **reduces the problem of heat retention.**
In addition, the storage tank can be made smaller.
- (3) More reliable control
In the event of an emergency stop, **more reliable control is possible**, and since boric acid is harmful to the human body and the environment, the **reduction of overall amount of boric acid** is an advantage.

Tin Fluoride

- 2017
The GMP inspection by USFDA for tin fluoride, an active ingredient of OTC anticaries drugs, was completed, and obtained official approval.
- 2018
Started marketing of “tin fluoride” as a GMP-compliant product.



Izumi Factory's manufacturing building
(Izumiotu City, Osaka)



<Actions of fluorine on teeth>

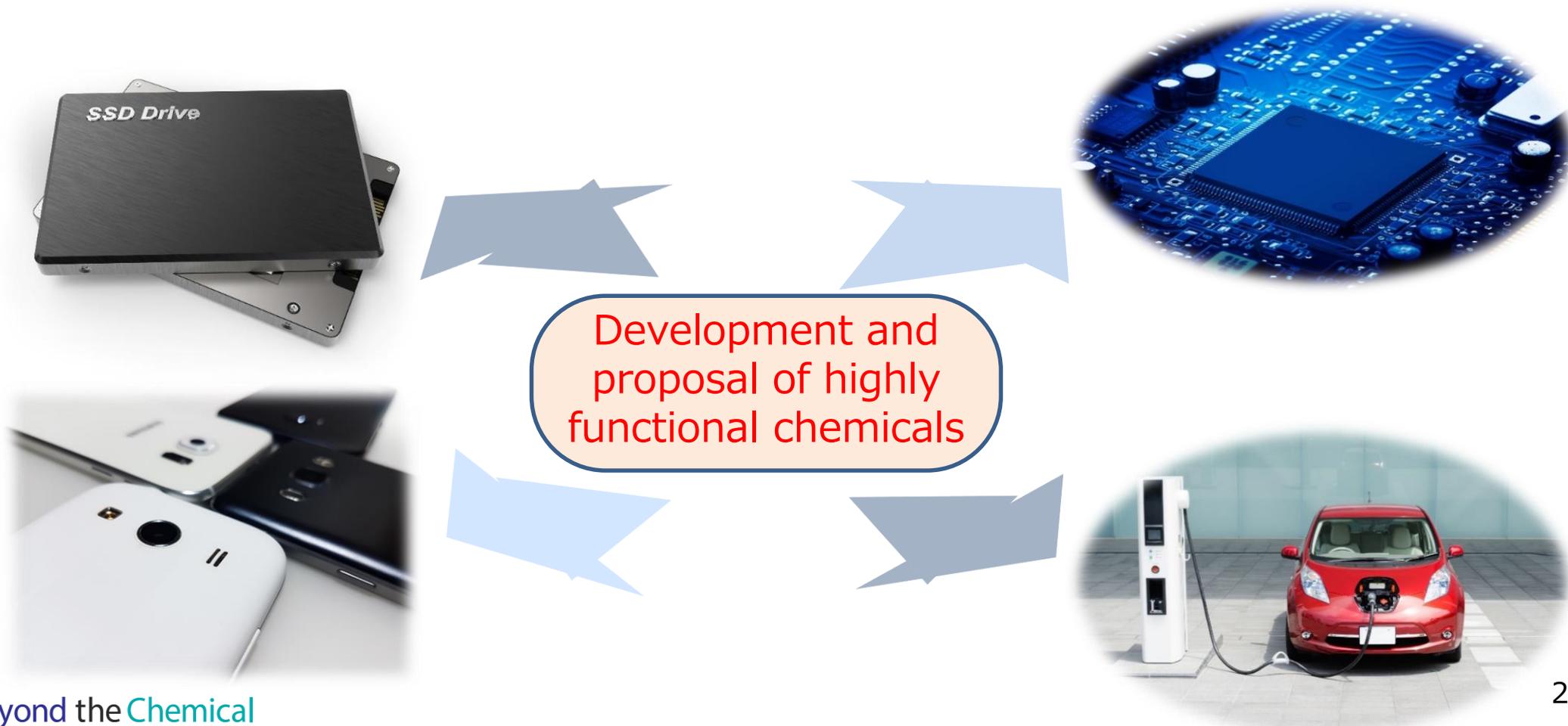
- To suppress Streptococcus mutans from producing acid (Cavity prevention)
- To promote tooth remineralization
- To form acid-resistant teeth (to form fluorapatite)

* We expect to see big demand mainly in Europe and the US, where there is strong interest in dental health and beauty.

⇒ We are also developing new applications other than toothpaste (e.g., hoof sterilization)

Chemicals for semiconductors

- Development of functional chemical solutions to meet the requirements of manufacturers of DRAM, which is becoming increasingly smaller, and 3D NAND, which is increasingly multilayered
- Smaller particle sizes will be guaranteed as logic and memory become smaller

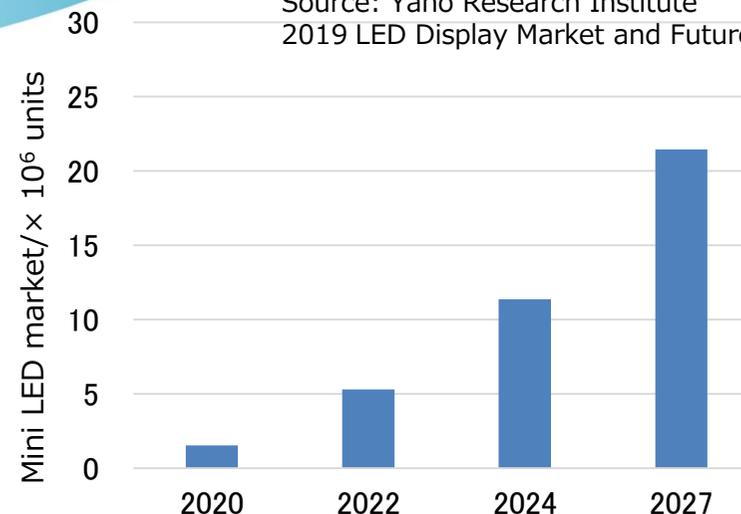


Introduction of Our Business

- New Initiatives(Electronic Materials) -



Source: Yano Research Institute
2019 LED Display Market and Future Prospects



Phosphor-related Materials

- Development of highly efficient and long-life fluoride phosphor materials using our core technologies
- Research on the use of mini LEDs for automotive display applications is attracting attention.

- Red phosphor materials LSA-61A
- Phosphor materials NSM, PBFS
- Filler for LED sealant MgF₂, CaF₂ nanoparticles

	LCD	OLED	Mini LED		Micro LED
Structural diagram					
Brightness	×	△	○	○	○
Life	○	×	○	○	○
Working temperature	-40 to 100°C	-30 to 80°C	-40 to 100°C	-40 to 100°C	-40 to 100°C
Status of development	Done	Done	Under development	Under development	In the future

Introduction of Our Business

- New Initiatives(Electronic Materials) -

PCB Materials (Low Dielectric Constant Materials)

- As materials for high-frequency communication devices, used as additives (fillers) to resin and other materials for substrates.

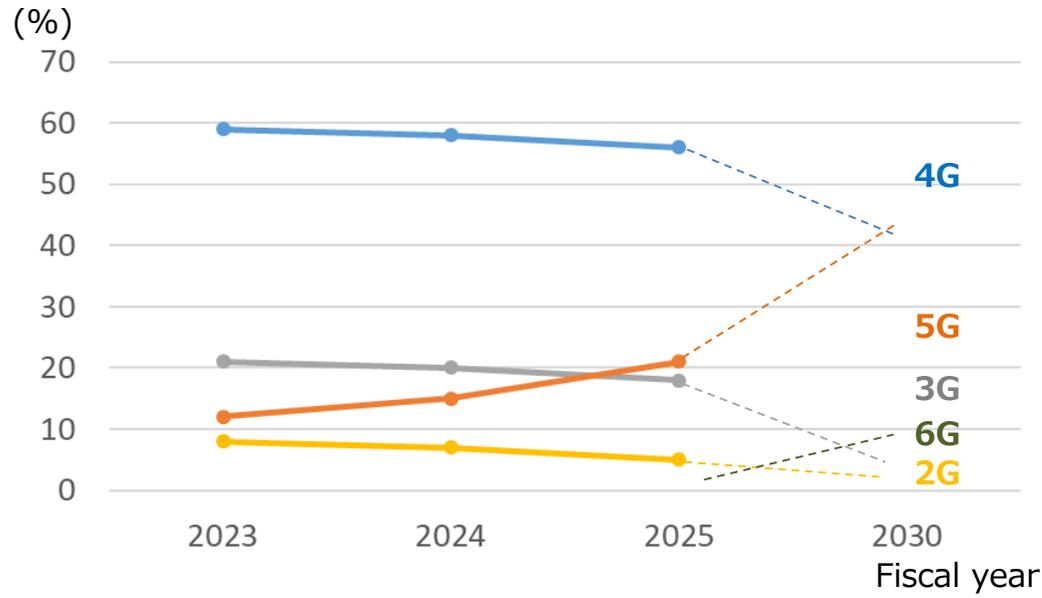
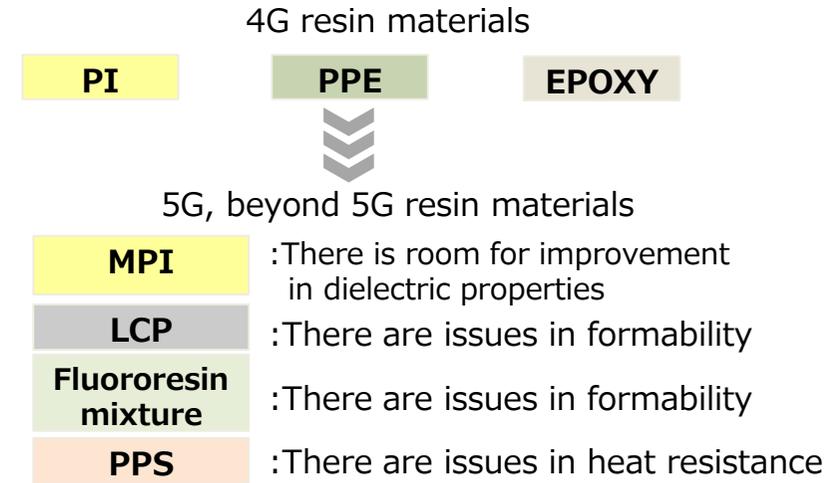
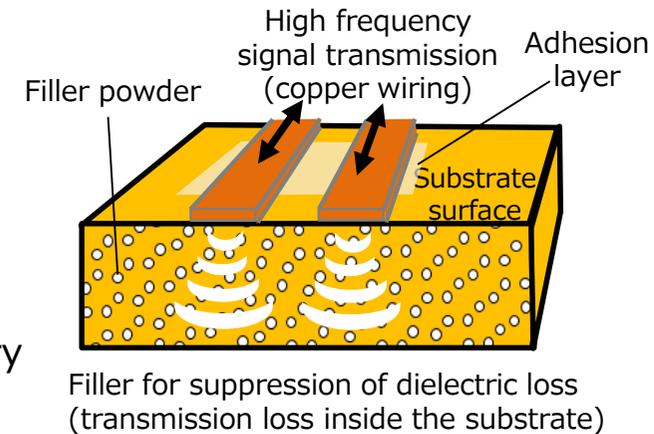


Figure. Forecast percentage of networks in global mobile networks (our forecast based on The Mobile Economy 2020)



Development of Materials for the Next-Generation Battery

- [Metal-ion secondary batteries] High-purity electrolytes for sodium-ion secondary batteries (sodium hexafluorophosphate)
- [All-solid secondary batteries] Fluoride materials for all solid-state batteries
- [Fluoride-ion secondary batteries] Fluoride-ion conductor material



Introduction of Our Business

- Other product examples -



(Product information)

Optical Material-Related

- ◆ Calcium Fluoride
- ◆ Magnesium Fluoride
- ◆ Aluminum Fluoride
- ◆ Lead Fluoride
- ◆ Lithium Fluoride
- ◆ Strontium Fluoride
- ◆ Barium Fluoride

Reactive Catalyst-Related

- ◆ High Purity Boron Trifluoride
- ◆ Boron Trifluoride n-Butyl Ether
- ◆ Boron Trifluoride Monoethyl Amine
- ◆ Boron Trifluoride Diethyl Ether
- ◆ Boron Trifluoride Tetrahydrofuran
- ◆ Boron Trifluoride Piperidine
- ◆ Boron Trifluoride Dimethyl Ether
- ◆ Boron Trifluoride Phenol
- ◆ Triethylamine 3HF

Surface Treatment, Alternatives for CFCs-Related

- ◆ Anhydrous Hydrofluoric Acid
- ◆ 55% Hydrofluoric Acid

Nuclear Energy-Related

- ◆ ^{10}B Enriched Potassium Fluoroborate
- ◆ ^{10}B Enriched Boric Acid

Other Products

- ◆ Fluorosilicic Acid
- ◆ Copper Fluoroborate
- ◆ Potassium Fluoroborate
- ◆ Potassium Fluoride
- ◆ Potassium Hexafluorotitanate
- ◆ Potassium Fluorosilicate
- ◆ Lead Fluoroborate
- ◆ Ammonium Hydrogenfluoride
- ◆ Ammonium Fluoride
- ◆ Refined Calcium Fluoride
- ◆ Fluoroboric Acid
- ◆ Zinc Fluoroborate
- ◆ Potassium Hexafluorozirconate
- ◆ Potassium Hexafluorophosphate
- ◆ Tin Fluoroborate
- ◆ Sodium Fluoroborate
- ◆ Sodium Fluoride

Newly-Developed Products

- ◆ Detergents Contributing to Increase in Chemical Lifetime
- ◆ Detergents Inhibiting Silicon and Polysilicon Damage
- ◆ Battery-Related (Ionic Liquids, Electrolytes for Sodium Ion Batteries - Sodium Hexafluorophosphate, Additives for Lithium-Ion Batteries,)
- ◆ Various Fluoride Nanoparticles Dispersant (Magnesium, Lithium, Ytterbium, Calcium, CNP-P)
- ◆ Nuclear Energy Industry
- ◆ Special-Purpose Inorganic Fluorine Compounds
- ◆ Detergents Suppressing Etching of Silicon Nitride Film
- ◆ Phosphor materials
- ◆ 5G/6G (Information Communication Systems), Printed Circuit Board
- ◆ Fluorinated Carbon Nano-Tubes

Introduction of Our Business

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* For details, please visit the website.

街のなかでもステラケミファ



家のなかでもステラケミファ



病院のなかでもステラケミファ



学校のなかでもステラケミファ



Introduction of Our Business

- Transportation Business -



(HP URL)

BLUE EXPRESS, Inc.

Transportation Business

Transport	Land transport · Marine transport · Rail transport
Customs Clearance	Customs clearance · Loading and Unloading
Warehousing	Providing multi-functional warehouses fully equipped with the latest systems
Container services	Supplying large and pressurized containers that meet ISO specifications, medium-size IBC pressurized containers, as well as IBC containers with UN specifications, and also offering services for cleaning, repairing and leasing the containers

Customs clearance sites	Shipping terminals	Overseas Bases
Ohama Office	Sendai Office	Singapore
Osaka Office	Kanto Office	China(Shanghai)
Yokohama Office	Yokohama Office	
	Shimizu Office	
	Nagoya Office	
	Ohama Office	
	Kobe Office	
	Kitakyushu Office	

