Possibility of Chemistry

Our work introduces new value for the future.
It makes tomorrow brighter for people and the planet.
Since our founding in 1915, we have challenged ourselves
to improve society and the world,
leveraging Denka's unique strengths unmatched by any other.

We combine 110 years of expertise with cutting-edge technology,
pioneering new possibilities in chemistry.
We anticipate the needs of the future and create new forms of prosperity.

Through efforts such as developing advanced materials
for the environmental and energy fields
and achieving breakthroughs in life science,
we continue to respond to ever-diversifying challenges.
Every employee shapes their own story so that
we continue to contribute to people, society, and the world.

Denka

Denka Co., Ltd.
Nihonbashi Mitsui Tower, 2-1-1, Nihonbashi-Muromachi
Chuo-ku Tokyo 1038338 JAPAN
www.denka.co.jp

New York, U.S.A.

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Denka

The Denka Way

Winter 2026 Vol.25

Turning water hazards into peace of mind

Contents

Creating a Sustainable Future Together with Water

Denka's Technology Supporting Safety and Security During a Climate Change Era

The unusual weather patterns caused by climate change heavily impact our daily lives. In cities, sudden and strong rains flood streets and underground malls, and water shortages in the countryside negatively impact agriculture. On the other hand, efforts to purify and reuse rainwater give us hope for a sustainable future. In this special feature, we cover how Denka's products and technologies support countermeasures for floods and the use of water resources.

Coexistence with water: A challenge in this climate change era

Water Circulates

In recent years, record-breaking heavy rainfall and typhoons have occurred frequently across the globe, increasing disaster risks year by year. Meanwhile, a report by the United Nations Development Programme (UNDP) points out that the world's water resources are unevenly distributed, with abundance in some regions and scarcity in others. These dual challenges—extreme precipitation caused by climate change and the uneven distribution of water resources—are affecting people's lives on a global scale.

We often think of Japan as a country rich in water resources, but that is untrue. In Japan, there are around 3,000 to 4,000 m^3 of water resources per person annually (diagram 1), which falls well below the global average. This is attributable to the steep, mountainous topography that makes it hard for water to pool and a concentrated human population, in addition to the growing water shortage from the decrease in rain and snow from climate change in recent years.

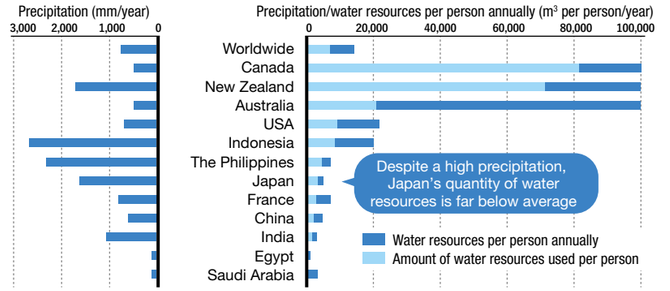
On the other hand, the frequency of rainstorms is remarkable. In the past 30 years, the number of annual intense short-duration rainfalls (at least 50 mm of rain per hour) has grown by about 1.5 times (diagram 2). As reported by Japan's Ministry of Land, Infrastructure, Transport and Tourism, there were about one trillion yen in flood damages and more than 1,000 landslide disasters in 2024. Although water shortages and floods appear contradictory, these growing issues are being faced by Japan simultaneously.

Denka's initiatives toward coexistence with water

In response to these challenges, Denka is supporting drainage and the reuse of water resources with technology to protect our livelihoods and build a society that coexists with water. Toyo Drainpipes, used to help in disaster recovery and disaster prevention; RaRaSui, which supports agriculture and water management; Dam Armor for preventing house floods; and PURE EDEN, which turns rainwater into water for daily use—these products play an essential, behind-the-scenes role in protecting communities and supporting daily life—even in times of emergency.

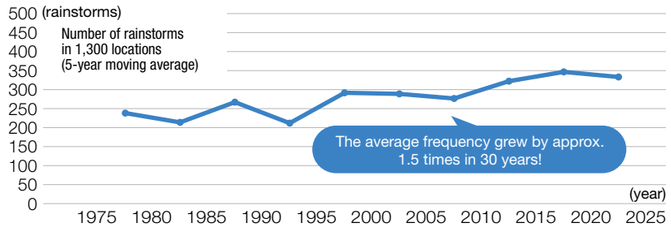
Coexistence with water is required to overcome this climate change era. Denka is reducing water-related risks to provide security to local communities and support the livelihoods of the next generation.

Diagram 1: Water resources per person around the world



Source: AQUASTAT – Food and Agriculture Organization of the United Nations (FAO)
The latest data on total renewable water resources as of 2020

Diagram 2: Number of rainstorms per year precipitating at least 50 mm per hour



Source: Japan Meteorological Agency, Past Changes in Heavy Rain and Scorching Hot Days (Extreme Weather)

Control Water

Damage recovery, disaster prevention, ground improvement measures, and agricultural support—

Denka's Toyo Drainpipes: Applicable at various sites

As flood and landslide disasters become increasingly severe, Japan requires infrastructure that will protect local communities. Denka's Toyo Drainpipes help with disaster recovery, prevention, and water management on civil engineering sites and agricultural sites.

Efficiently draining water from disaster sites

Hiroki Shibata
Water & Agri-Products Dept.
Elastomers & Infrastructure Solutions

The first issue at sites of landslides and sinkholes caused by heavy rain is how to drain the water. If the drainage path for water is blocked, recovery operations cannot proceed, causing the soil to become loose and raising the chance of a secondary disaster. The solution to this danger is Toyo Drainpipes. In times of disaster, they can act as emergency drains to quickly drain the water. Additionally, once recovery efforts are complete, they can be buried where they are to drain water from underground, thus preventing future landslides.

In September 2024, heavy rain caused a large sinkhole on National Route 16 in Chiba Prefecture. This major highway was cut off, but Toyo Drainpipes were immediately shipped from Chiba Plant and traffic was restored in just 31 hours. Thanks to their light weight making them easy to install, the drainpipes contributed to a quick recovery. This example is a symbolic moment for proving the capability of Toyo Drainpipes.

Toyo Drainpipes are an essential part of tunnel and highway infrastructure that supports our daily lives. They drain the water into drainage systems to prevent flooding, therefore helping to reduce damages and build a safe social infrastructure. This kind of drainage technology quietly keeps us safe in our daily lives.

Managing water to create an optimal environment for crops

Kazunori Kawamura
Water & Agri-Products Dept.
Elastomers & Infrastructure Solutions

In rice fields and farmland, insufficient drainage will hurt plants' roots while a lack of water will reduce harvest yield. Toyo Drainpipes support water management, the lifeline of agriculture. One of the applications enabled by Toyo Drainpipes is underground irrigation, such as by using RaRaSui. Instead of watering farmland from the surface, RaRaSui supplies water from underground via buried Toyo Drainpipes and regulates water levels at the endpoints. This helps to stably provide an ideal environment for crops.

Toyo Drainpipes assist in not only farmland irrigation but also land readjustment. Replacing the drains that run along farmland with Toyo Drainpipes enables farming equipment to be freely operated on the farmland and can create larger plots, which is necessary for realizing smart agriculture. This streamlining is the solution to the lack of farmers and reducing farmers' workloads.

Denka has expanded its product lineup to meet more needs, such as with the Toyo Drainpipe component launched in 2025 that is made from plant-based bio polyethylene. Denka will continue to take on challenges like these to resolve agricultural issues and create a better future.

Enhancing production capacity and Denka's product lineup!

New Toyo Drainpipes manufacturing plant begins operations in Kyushu

The new plant for Kyushu Plastic Industry, a Denka Group company located in Tamana City, Kumamoto Prefecture, that manufactures Toyo Drainpipes, began operations in June 2025 to further expand supply capabilities. The new plant increased production capacity by about 60% and storage capacity by about 80%, establishing a stable supply for infrastructure development and disaster prevention and mitigation needs.

Not just Toyo Drainpipes! RaRaSui: An underground irrigation system

Denka is developing RaRaSui as an underground irrigation system that controls water levels in farmland. Toyo Drainpipes provide underground water channels, while RaRaSui's components adjust water levels by supplying or draining water, supporting stable, high-quality, and abundant crop production.

Yasutake Mizuno
Deputy Manager
Water & Agri-Products Dept.
Elastomers & Infrastructure Solutions

Supporting our daily lives from underground

In recent years, the number of floods from heavy rain and typhoons has grown, increasing the need for drainage measures. The answer to this challenge is Denka's Toyo Drainpipes. Installed underground, the pipes absorb water through small holes, then channel it through the pipes for drainage, helping to secure drainage routes and improve the environment at construction sites. The pipes are made with high-density polyethylene, making them lightweight, easy to install, and extremely durable, in turn earning recognition from consumers. Toyo Drainpipes assist in recovery from landslides and floods, control water levels of farmland, and contribute to healthy crops. Efforts such as these directly lead to the creation of a sustainable society.

At construction sites, workstyle reforms and the 2025 logistics problem have become pressing issues. Denka has established distribution warehouses throughout Japan to build a fast, flexible supply system, therefore reducing worksite burden and ensuring a stable supply during emergencies. Supporting worksites with easy installation and a stable supply network—this is the responsibility and role of Denka's products.

Proud of its technology that brings value from behind the scenes, Denka is creating a future where people can live with peace of mind, from inside the soil. On top of that, we will continue to support a society that coexists with water.

Utilize Water

Rainwater is a resource that supports our daily lives

Collecting and using water in our daily lives is essential to realizing a sustainable future.
Here, we will introduce Denka Astec's products that are bringing our limited water resources into the future.

Rain gutter

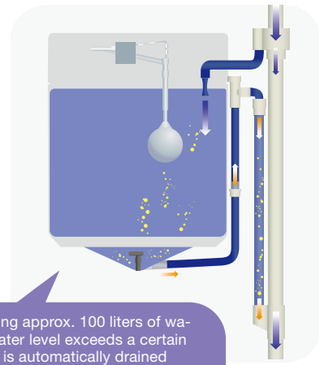
Rain gutters efficiently collect and drain rainwater that falls on rooftops to protect the foundations and walls of houses from corrosion and deterioration. Denka Astec's lineup includes both resin and metal gutters and caters to a wide range of needs. Their gutters are used on houses, warehouses, and even shrines and temples, and help extend the lifespan of homes.

Gutters are important building components that protect homes. They not only improve drainage capability but also contribute to their durability and design, increasing the quality of our daily lives.

PURE EDEN

GOOD DESIGN AWARD 2024

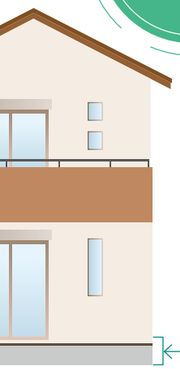
Denka Astec and Fukui University of Technology started co-developing PURE EDEN and launched the product in 2024. It is the world's first wall-mounted tank for turning rainwater into non-potable household water. By using unique water-recycling technology to return the rainwater along with sediment and debris from the tank back to the gutter, it can be used in daily activities such as flushing toilets, watering the lawn, and washing cars. In addition to conserving water, elevation differences can be used to send water to toilets without electricity when the power or waterline goes down, helping to resolve toilet-related issues, a source of worry during disasters.

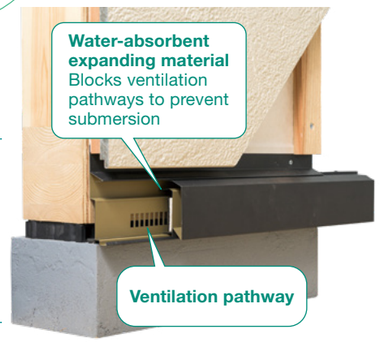


Capable of storing approx. 100 liters of water. When the water level exceeds a certain point, the water is automatically drained along with the accumulated debris, helping to keep the stored water clean.

Dam Armor

GOOD DESIGN AWARD 2025





Foundation flashings are installed between the foundation and walls to prevent rainwater from directly hitting the foundation. It also ensures underfloor ventilation through its vent, preventing corrosion and mold caused by moisture.

Flooding beneath floors often occurs when water enters the foundation flashing's ventilation openings. Dam Armor, much like foundation flashing, has ventilation properties, but when there is flooding, the internal water-absorbent expanding material grows to block the ventilation pathway and minimize inside flooding. Dam Armor is replaceable, so after a flood, only the cover has to be replaced, making for low-cost maintenance.

Development driven by the Great East Japan Earthquake

The developer experienced the Great East Japan Earthquake while working at the Tohoku Branch, and the brutal situation when essential social infrastructure was cut off woke him up to the importance of disaster prevention. This experience ultimately led to the birth of Dam Armor. Since no products on the market could prevent under-floor flooding, he was determined to develop one and started the process. It took around two years to find materials and four years to complete the product, but his determination gave rise to a new disaster prevention technology.

Nakamura, the developer (On the left. Now works in the Water & Agri-Products Sec., Fukuoka Branch, Denka)

The passion behind PURE EDEN: Clean water even in emergencies

"If we already have water-collecting technology, let's use it." This is the idea that led to PURE EDEN. At the root of this project was Denka Astec's disaster prevention awareness. One particularly difficult challenge during evacuation is toilet-related matters. Clean water is used for drinking, and it is common for people to avoid using toilets to the point they suffer health problems. This is what led us to wanting to use rainwater as "clean" water to flush the toilet and bring peace of mind during emergencies. PURE EDEN is currently used to flush toilets and water the lawn, but we are committed to developing a new rainwater use management system for doing laundry and drinking water.

Takanori Ota
Section Manager, New Business Planning & Development Dept. Denka Astec

Seiji Ono
Manager, New Business Planning & Development Dept. Denka Astec

Creating new value based on rain gutters

Denka Astec split off from Denka's Housing Materials Dept. as a separate company in 2021. With the know-how acquired through Denka's manufacturing and sale of rain gutters at the company's foundation, Denka Astec is developing a new business centered on using and controlling rainwater. Currently, four staff members, most with experience in rain gutter sales, are collaborating with external specialists and universities to promote development in the wide range of fields protecting daily life, starting with rain gutter technology.

Denka Astec's newly developed products, including PURE EDEN and Dam Armor, are part of an underdeveloped existing market. While everyone feels the necessity for rainwater use and flood countermeasures, the field lacks products and systems. In particular, there is a preconception that rainwater is dirty, so Denka Astec's important mission is to provide a system for people to use rainwater with peace of mind and to change that image.

Denka Astec is taking on the challenge of exploring this untapped field to realize a sustainable society that uses water. Going forward, the company will spread awareness of and improve its existing products, while bringing customers' desires to life and meeting their diverse needs. Leveraging the technology fostered as a rain gutter manufacturer to provide new value to daily life—that is Denka Astec's mission.

History of Challenges

The Story of Denka's 110-Year History

vol. 02 1927-1933

Ginjiro Fujiwara (front row, second from the right) and executives

Attempting to Save Denka's Fate

Ginjiro Fujiwara and the Revitalization of DENKI KAGAKU KOGYO

Amidst the recession that shook up Japan's economy at the beginning of the Showa era, DENKI KAGAKU KOGYO (currently Denka) was at a crossroads that would determine its fate as a company. After the retirement of Tsuneichi Fujiyama, who supported the company's founding, Ginjiro Fujiwara was entrusted with the company's helm. Even in the harsh environment, he shouldered the company's fate and reformed it. In this issue, we look back on these pivotal decisions from his perspective.

Ginjiro Fujiwara

After graduating from Keio University and working at Matsue Nippo in Shimane, he was appointed executive director at Oji Paper, for which he expanded Tomakomai Mill and developed a power grid, turning the company around. He then helped found DENKI KAGAKU KOGYO. In 1927, he was appointed chairman of the company. He then worked as a member of the House of Lords and as minister of commerce and industry, and committed to promoting education in science and engineering.

The retirement of Fujiyama, and the coming of a large management crisis

In 1927, DENKI KAGAKU KOGYO faced its largest management crisis since its founding. The recession following World War I, the social panic after the Great Kanto Earthquake, and a financial crisis—amid these upheavals, the company's performance dropped rapidly. Tsuneichi Fujiyama, who supported the company since its founding, took responsibility for the poor performance and retired. Fear and anxiety concerning the company's future spread among employees during this period that would test the company's fate.

As an executive since DENKI KAGAKU KOGYO's founding, I felt a strong sense of responsibility for the current situation. If I backed out now, the company would collapse. That's why I decided to take over as chairman. "The revitalization of DENKI KAGAKU KOGYO requires a fundamental reform." The path I chose was built on two pillars: thorough streamlining and forward-looking investments.

Financial recovery and bold investment measures

As the newly appointed chairman, I first strived to strengthen our financial base. I dismissed some executives and reduced our capital by one fifth, or seven million yen, to compensate for our losses. Furthermore, I worked to reduce our electric costs, which accounted for more than half of our factories' expenditures, by reevaluating operational methods and improving the facilities. These were not simple austerity measures but strategic streamlining for restructuring our corporate structure from the root.

However, streamlining alone cannot open a path to the future. In conjunction with this, I started making capital investments to grow our company. In 1927, we began the construction of Oyodogawa Power Plant No. 2 with the aim of reducing manufacturing costs by enhancing our self-sufficient power system. We also installed large electric furnaces and calcium cyanamide furnaces in Omi and Omuta Plants and, starting from 1928, invested a total of 16 million yen in capital improvements. When I remember our annual revenue at that time was around 10 million yen, I realize just how bold my decisions were. Additionally, by switching the focus of our sales from ammonium sulfate to calcium cyanamide, we transformed our profit structure.

Invited Highland, an engineer from Europe, to improve manufacturing technology (third from the right)

Kurobegawa Electric Power head office

Tenacious negotiations and revitalization

Through streamlining and investments, DENKI KAGAKU KOGYO managed to recover its performance through streamlining and investments. However, in 1930, it once again suspended dividends, a situation that lasted for two and a half years. On top of that, in 1932, the fall in the price of fertilizer once again put management in a dire situation.

The biggest hurdle was power fees. The company repeatedly negotiated with Nihonkai Electric Power Company and Kurobegawa Electric Power to lower the rates. At a three-party meeting in August 1931, the three companies reached an agreement to settle the difference between past billed amounts and payments through a Shusse Shomon* offering a hopeful sign for resolving the power cost issue.

However, the price of fertilizer continued to fall, putting us in a critical situation with our electricity payments. In desperate need of a solution, I met with Shosaku Yamada, president of Nihonkai Electric Power Company, at Wakura Onsen in Ishikawa Prefecture in July 1932. Through these negotiations, we successfully reached an agreement that included co-management and additional investment in Kurobegawa Electric Power, as well as the priority use of special industrial electricity. DENKI KAGAKU KOGYO contributed both Oyodogawa Power Plant No. 1 and No. 2 in kind to participate in management, and introduced a sliding rate system that linked special industrial electricity rates to the price of ammonium sulfate. This arrangement allowed us to adjust our financial burden and overcome this second existential crisis.

At this time, I became confident that a company's fate rested on decision-making and tenacity. Streamlining, investments, and persistent negotiation—this is what guided DENKI KAGAKU KOGYO's revitalization.

*Shusse Shomon: A document without a set repayment deadline, where the debtor agrees to repay the debt when they are able.

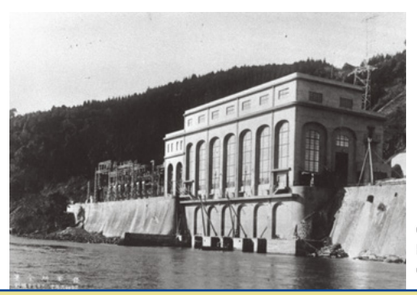
History of Denka

1927

Tsuneichi Fujiyama takes responsibility for poor performance and retires. Ginjiro Fujiwara is appointed chairman and director.

1928

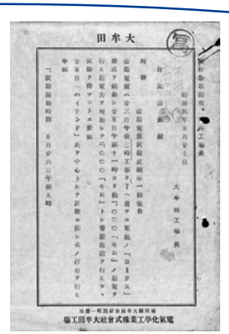
A total of 16 million yen is invested over five years from 1928 to 1932, including in construction of Oyodogawa Power Plant No. 2 and installation of large electric furnaces and calcium cyanamide furnaces in Omi and Omuta Plants.



Oyodogawa Power Plant No. 2, completed in 1931

1929

Succeeds in manufacturing carbide using the resistance method under Engineer Highland's guidance



First report on test results for a remodeled electric furnace (May 27, 1929)

1930

Earnings declined again, and dividends are suspended.

1931

Moved the head office to Sanshin Building in Yurakucho

Sanshin Building after construction completed

1932

Shosaku Yamada

Ginjiro Fujiwara and Shosaku Yamada, president of Nihonkai Electric Power Company, meet at Wakura Onsen in Ishikawa Prefecture and reach an agreement to co-manage and increase investments in Kurobegawadenryoku and to prioritize the use of special electricity supply.

1933

Ginjiro Fujiwara resigns as chairman of the board and director and becomes an advisor. Masanao Kobayashi is appointed president.

President Kobayashi (front row, fifth from the left) and employees at Omuta Plant

Social milestones

The Showa era begins (1926)

Showa Financial Crisis (1927)

The Great Depression (1929)

Mukden incident (1931)

Story 1

Discarded electricity supports Japan

The history of Denka's hydropower generation started with Fujiwara. At the Lake Shikotsu Power Plant of Oji Paper, for which Fujiwara once worked as an executive, surplus electricity was discarded without being used. Amidst this, Tsuneichi Fujiyama proposed the possibility of manufacturing carbide, to which Takuma Dan replied, "If we can use discarded electricity to make carbide and calcium cyanamide, it will be good for Japan." This was the beginning of Denka and ultimately led to the establishment of Hokkai Carbide Plant, which was powered by the aforementioned surplus electricity. Starting with Kotakigawa Power Plant in 1921, Denka built power plants throughout Japan. The company became self-sufficient in electricity with the expansion of its power plants, contributing to business stability and local development.

"If we could use unused electricity to make carbide and calcium cyanamide, it would be of great benefit to Japan."

(From The Story of Ginjiro Fujiwara)

Story 2

"At all costs" —Ginjiro Fujiwara's determination for corporate reconstruction

At the beginning of the Showa era, Denka faced its largest crisis since its establishment. During its 26th term, the company recorded a loss of 6.54 million yen, forcing the company to reduce its capital. In response to this, Ginjiro Fujiwara said, "I am keenly aware of my responsibility for not doing all I could as an executive in the 13 years since our establishment," and declared he would reorganize the company at all costs. This burden is what drove Fujiwara to become chairman. Fujiwara's commitment to reducing capital despite facing backlash from shareholders was a testament to his sincerity and resolve as a manager.

"I took on our company's reorganization with a determination to rebuild it at all costs."

(From The 100-Year History of DENKI KAGAKU KOGYO KABUSHIKI KAISHA)

Story 3

"Will you put up your body as collateral?" Ginjiro Fujiwara's resolve

The construction of Oyodogawa Power Plant No. 2 required at least 5 million yen in funding, but Denka was facing financial difficulties at the time, making its financial outlook unclear. Ginjiro Fujiwara visited Umekichi Yoneyama, president of Mitsui Trust, to plead for financial support. Yoneyama asked what he was willing to put up as collateral, to which Fujiwara answered, "I take full responsibility—please lend me the funds, even if it means using my own body as collateral." Moved by Fujiwara's resolve, Yoneyama approved the loan. He then laughed because it was the first time someone had offered their body as collateral.

"I take full responsibility—please lend me the funds, even if it means using my own body as collateral."

(From the DENKI KAGAKU KOGYO Statement of Purpose)

Story 4

To protect the Hokuriku business

Amid a looming financial crisis, DENKI KAGAKU KOGYO signed an agreement with Nihonkai Electric Power Company that was centered on Kurobegawa Electric Power. The one who promoted this agreement despite surrounding pushback was Shosaku Yamada, president of Nihonkai Electric Power Company. He believed in the potential of DENKI KAGAKU KOGYO, which originated in Hokuriku, and prioritized the continuation and development of regional industry. His decision was based on a responsibility that extended beyond the confines of the company and held significant meaning for the local economy.

"I sincerely wanted DENKI KAGAKU KOGYO to succeed. I couldn't let this local business in the Hokuriku region wither away."

(From The Story of Shosaku Yamada)

Cross Baton クロスバトン

Exploring the thoughts of the Denka employees behind our products from sales and development to manufacturing

Bringing forth light to illuminate the next generation

Elevating Alonbright to Denka's Core

Ryo Degawa

Technology Section
Production Dept.2
Omuta Plant

Profile
Joined Denka in 2014, gaining experience at the Ceramics Research Department, Quality Assurance Department, and other departments at Omuta Plant before reaching his current position. He is currently involved in the development and mass production of red and green phosphors. His days off are spent playing tennis and playing games with his daughter.

Takeshi Fujiyoshi

Manufacturing Team, Phosphor Section,
Production Dept.2,
Omuta Plant

Profile
Joined Denka in 2007. After taking part in the development of ALONBRIGHT as part of the phosphor project team, he now works as a supervisor for the Phosphor Section of Production Dept.2. His days off are spent watching SoftBank Hawks games and anime to relax.

Chasing the birth of light

I am part of the Technology Section in Manufacturing Department No. 2 at Omuta Plant, and I handle the research and development of ALONBRIGHT. My main focus is on newly developing red and green phosphors while also overseeing mass production and team management. Red phosphors are highly cost-competitive and present a difficult task of aiming for improvements within the limitations of patent restrictions, but the challenge makes any progress achieved feel all the more worthwhile. On the other hand, our green phosphors have already been requested for delivery by a customer, so mass production is being accelerated for that product. Utilizing the advantages in data science, I am committed to creating a product that will outperform our competitors.

Research and development is a constant repetition of trial and error. After clearing countless restrictions, that moment when a prototype finally emits light still leaves me in awe no matter how many times I witness it. Being able to impact visual experiences by having what we developed be implemented into familiar products such as displays is one of the things that make this job so appealing.

Connecting dreams and expertise to the future

When I was a child, seeing the lights let out by fireflies and firefly squids outside in my hometown is what started my journey to becoming a researcher. The lights fascinated me, and I continued to dream of one day being able to research something relating to it throughout my student years. Now, my dream has been realized, and I am able to take part in the development of ALONBRIGHT.

From here, I plan to continue conducting research that contributes to the improved performance of ALONBRIGHT while also attempting to develop next-generation luminescent material. Also, since I have now become a mid-level employee, I will not only focus on my own expertise, but I would also like to devote some energy into relaying my knowledge and skills to the next generation.

As I was once captivated by light and began taking part in research of ALONBRIGHT at Denka, there will someday be children who come across the light emitted from materials I developed—leading them to join our company as future researchers to bring forth luminescent materials unlike any before. That is the future I dream of.

Keeping a watchful eye as a supervisor

As a supervisor for the manufacturing of ALONBRIGHT, I take on the task each day of ensuring the safety and quality of our worksite. In order to guarantee delivery of innovative products to support our society, it is my duty to closely monitor each and every part of the manufacturing process while also creating a work environment that prevents mistakes and supports efficient manufacturing.

Product performance is dependent on the level of on-site management capabilities. That is why, as a supervisor, I take my responsibility as the last line of defense in ensuring quality to heart and am always stationed at the worksite. At the morning and end-of-day meetings, I make safety checks and schedule adjustments to maintain a work environment where the whole team can work without worry. I also patrol each process to make thorough checks on whether there are any issues with facilities and machinery. To prevent fluctuations in quality, I also make sure to improve overall on-site capabilities by educating new employees.

Growing together with ALONBRIGHT

ALONBRIGHT is a product that holds special meaning for me, as I have been involved with it since its launch. After many prototypes and improvements, it is finally being used in familiar products such as displays and contributing to society. I am very happy and proud to have played a part in that.
I would like to continue to deepen my knowledge of phosphor characteristics and processes through my work in manufacturing while improving the stability and efficiency of products through my daily tasks to further develop my expertise as an engineer. By continuing to deliver a valuable product like ALONBRIGHT to society, I wish to also grow more as a person alongside it. ALONBRIGHT is still a relatively new product, but my hope is that it grows to become one of the pillars that support the future of Denka and that it will lead our way to the next generation.

Product Spotlight

ALONBRIGHT

The future of light supported by vivid colors and longevity

Phosphors are materials that absorb energy from external light sources and re-emit it as light at different wavelengths. They are widely used in various applications, including lighting and display technologies. In particular, in LED lighting and LCD backlights, phosphor performance plays a critical role in determining color vividness and long-term reliability. Denka's ALONBRIGHT is a nitride-based phosphor with excellent weather resistance and minimal loss of luminescence intensity even under high-temperature conditions. By achieving both vivid color reproduction and long service life, it contributes to the advancement of next-generation light source technologies.

Data
■**Production site:** Omuta Plant
■**Sales:** Functional Ceramics Department

Could you summarize the product in a few words?

A product that impacts visual experience

What kind of specialist do you aspire to be?
I aspire to be a specialist who can continuously pursue work with passion, apply skills that are uniquely my own, and sustain these efforts over time. By maintaining a balance of mind, skill, and body—known in Japan as "Shingitai"—I aim to deliver results and create value with a level of quality that others cannot achieve.

Could you summarize the product in a few words?

A magical material that brings color to the world

What kind of specialist do you aspire to be?
What kind of specialist do you aspire to be?
I aspire to create new value while being flexible in the face of change. By combining knowledge with practical skills, I aim to become a specialist who is trusted by those around me.

Pick Up

Nov.

November: Work–Caregiving Balance Promotion Month! Promoting a work environment where employees can feel secure

Denka has designated November as Work–Caregiving Balance Promotion Month, as part of its efforts to create a workplace where employees can continue working with peace of mind. During this month, we share relevant information and host various seminars.

As society increasingly calls for systems that support the balance between work and childcare and caregiving, it is essential for companies to proactively develop supportive work environments and fulfill their responsibilities. In particular, caregiving has become an increasingly pressing issue as the workforce ages, resulting in a growing number of employees leaving their jobs due to caregiving responsibilities, with serious implications for corporate activities. Within our company, employees aged 40 and above—who are likely to become part of the caregiving population—account for more than half of our workforce. According to an employee survey conducted in FY2024, 5% of employees are already providing caregiving, while approximately 20% are expected to face caregiving responsibilities in the near future. Recognizing these results as a critical management issue, we position support for balancing work and caregiving as a core component of our talent strategy, aligned with our overall business strategy. Since FY2023, we have designated November as "Work–Caregiving Balance Promotion Month" and have implemented focused initiatives during this period.

In addition, following the amendments to the Act on Childcare Leave / Caregiver Leave in May 2024 and the phased enforcement of these revisions on April 1 and October 1, 2025, we have been promoting understanding through explanations of the revised legal requirements, reviews of internal systems, and employee seminars.

Denka's Childcare and Caregiving in Numbers (FY2024)

The number of employees who took childcare leave
Female 114% Male 73%

The number of employees who took short-term caregiver leave
185

Number of employees who took caregiver leave
3

The online seminar on balancing work and caregiving held on November 14

Explanation! What has changed in the Act on Childcare Leave / Caregiver Leave? The following points have been revised:

Childcare	Denka's response
Effective April 2025	
● Revisions to Sick/Injured Childcare Leave	
Renamed "Childcare Leave for Medical and Other Needs"	Revised in line with statutory requirements
Expanded eligibility to children through the 3rd grade of elementary school	Eligibility remains until the end of the 6th-grade school year (no change)
Added eligible reasons for leave, including class closures and kindergarten entrance and graduation ceremonies	Graduation ceremonies added in addition to statutory reasons
Abolished the exclusion for employees with less than six months of continuous employment	Revised in line with statutory requirements
● Expanded eligibility for overtime exemption from employees with children under age 3 to those with children up to pre-elementary school age	Continued application of current measures (no change)
● Obligation to make efforts to introduce telework	Continued application of current measures (no change)
● Expanded obligation to disclose male employees' childcare leave usage	Continued application of current measures (no change)
Effective October 2025	
● Flexible work arrangements for employees raising children aged three to pre-elementary school: Obligation to implement at least two of the following measures: 1. Changes to starting times and other work schedules 2. Telework or similar arrangements (10 or more days per month) 3. Establishment and operation of childcare facilities 4. Childcare work–life balance leave (10 or more days per year) 5. Shortened working-hours system	Measures 1 and 5 applied (no change)
● Obligation to individually inform employees of work-style measures, confirm their preferences, and give due consideration	Revised in line with statutory requirements

Caregiving	Denka's response
Effective April 2025	
● Abolished the exclusion for employees with less than six months of continuous employment from short-term caregiver leave	Revised in line with statutory requirements
● Obligation to establish support systems, including consultation services, training, information provision, and policy communication	Continued application of current measures (no change)
● Obligation to provide information and confirm employees' intention to use the system	Revised in line with statutory requirements
● Obligation to make efforts to introduce telework	Continued application of current measures (no change)

Source: Ministry of Health, Labour and Welfare – Key Points to the Amendment to the Act on Childcare Leave / Caregiver Leave

Voices of HR


Tomoko Ogawa
Wellness and DE&I Promotion Sec.
HR Dept.

The number of employees utilizing the system has been steadily increasing. We share relevant information via the company intranet so all employees can access it in a timely manner.

Voices of Parenting Employees!


Riku Tashiro
Ceramics Research Dept.
Elastomers & Infrastructure Solutions
Electronics & Innovative Products

Childcare leave has been very helpful, as it allowed me to take my child to a medical appointment without worrying about using up my annual leave. Thanks to the understanding of my supervisor and colleagues, I've been able to balance work while raising three children.

Sep.

Issued Denka Integrated Report 2025

Denka Integrated Report 2025 was issued. The report consists of three themes: "cash generation through business operations," "minimization of capital costs (mechanisms and frameworks to enhance reliability)," and "improvement of future growth rate (Strengthening of intangible assets as the driving force of growth)." The main articles cover topics such as the status of DPE's manufacturing facilities, environmental management disclosures (TCFD/TNFD), initiatives for enhancing human capital value, respect for human rights, and integrated risk management. The publication highlights Denka's efforts aimed at maximizing corporate value.

Oct.

Company Alumni Association general meeting for 2025 held

On October 6, the 2025 Company Alumni Association General Meeting was held at the Mandarin Oriental Tokyo in Nihonbashi Mitsui Tower, with 160 alumni attending. The meeting opened with a greeting from the Association's Chairman, former Vice President Ito, followed by a report on the company's performance and key topics by President Ishida. The social gathering began with a toast by Senior Managing Executive Officer Hayashida. Current executives based in Tokyo also joined the event, creating a warm atmosphere as attendees reunited with familiar faces. The meeting closed with remarks by former Managing Executive Officer Toyooka, and the participants dispersed looking forward to the next reunion.

Nov.

Investment in a conductive polymer development company to expand business in next-generation electronics

Denka has decided to invest in CREATE VALUE Co., Ltd., a company engaged in the development, manufacturing, and sales of the conductive polymer PEDOT:PSS. In addition to its conventional use in capacitors, PEDOT:PSS is expected to become a key material supporting next-generation industrial infrastructure—including touch panels, OLED displays, and perovskite solar cells—driven by growing demand for next-generation displays and flexible devices. By combining CREATE VALUE's manufacturing expertise with Denka's polymer synthesis technology, Denka aims to jointly develop high-performance conductive polymers, expand into new applications, and establish manufacturing processes.

Oct.

Investment in a Korean startup to strengthen the thermal conductive filler business

Denka has decided to invest in NAiEEL Technology, a Korean startup engaged in the development, manufacturing, and marketing of boron nitride nanotubes (BNNT). BNNT is a nanomaterial expected to be applied across a wide range of fields, including electronics, semiconductors, aerospace, medical, and biotechnology. To address the rapidly growing demand for high thermal conductivity in AI servers, semiconductor power modules, and other applications, Denka will collaborate with NAiEEL Technology on joint development initiatives, including combining BNNT with Denka's thermal conductive fillers, toward the realization of next-generation heat-dissipating materials.

Nov.

Naming rights agreement with Denka Big Swan Stadium renewed

Denka has decided to renew its naming rights agreement for Denka Big Swan Stadium (Niigata Stadium), which was set to expire on December 31, 2025. This marks the fourth renewal of the contract. A joint press conference was held on November 4, attended by President Ishida, Governor Hanazumi of Niigata Prefecture, and President Nakano of Albirex Niigata, where the three parties signed the agreement. The new contract period will run for three years, from January 1, 2026, to December 31, 2028. During the press conference, President Ishida expressed the company's commitment to contributing to regional development and the promotion of sports.

Dec.

Certified as a "DX Certified Operator" by METI

Denka has been certified as a DX Certified Operator under the DX Certification Program established by Japan's Ministry of Economy, Trade and Industry (METI). The program recognizes companies that are prepared for digital-driven business transformation. To achieve its management plan, Mission 2030, Denka has formulated a DDX Roadmap and is advancing three major initiatives: eliminating gray-zone operations through AI, transforming business processes through BI and data-driven approaches, and enhancing customer satisfaction while creating new value through CRM. By accelerating the use of digital technologies across the organization, including the development of DX talent, Denka aims to enhance its corporate value through a company-wide effort.