Kyulux
Materializing the future of OLEDs



Kyulux Factbook 2025

Based on information for the fiscal year ending
December 31, 2024

Kyulux
Materializing the future of OLEDs



1 About Kyulux

Company Name	Kyulux, Inc.
Founded	March 9, 2015
Representative Director	CEO Junji Adachi
Employees	91（as of end of December 2024)
Head Office	Suite 227, FiaS Bldg. 2, 4-1 Kyudai-Shinmachi, Nishi-ku, Fukuoka 819-0388, JAPAN
Production Management	Suite 212, Ito Lab+, 5-5 Kyudai-Shimmachi, Nishi-ku, Fukuoka 819-0388, JAPAN
Kyulux North America, Inc.	50 Milk Street, 16th Floor, Boston MA 02109 USA
Development Partners	Center for Organic Photonics and Electronics Research (OPERA, Kyushu University)
	Fukuoka i^3 Center for Organic Photonics and Electronics Research (i^3-opera)
	Fukuoka Industry Science Technology Foundation (Fukuoka IST)

2 Activity and Business

Kyulux is a startup company originating from Kyushu University, established to commercialize the OLED emission technology "TADF (Thermally Activated Delayed Fluorescence)" developed at Kyushu University. Based on this technology, Kyulux is developing the cutting-edge OLED emission technology "Hyperfluorescence™," which is rare-metal-free, cost-effective, highly efficient, long-lasting, and high in color purity.

To accelerate materials development, we have developed and utilized the "Kyumatic™" Materials Informatics (MI) system, which integrates proprietary functionalities into cutting-edge artificial intelligence (AI) technology exclusively licensed from Harvard University in 2016. Kyumatic™ is a groundbreaking MI platform that enables highly accurate property prediction by learning from over 260,000 instances of *DFT calculation data, molecular synthesis, and device evaluation results.

With a 717 ㎡ research lab at its headquarters (including Ito Lab+) and a number of analytical and analytical instruments utilizing government-supported projects, the company is driving further technological innovation as a game changer in the OLED industry.

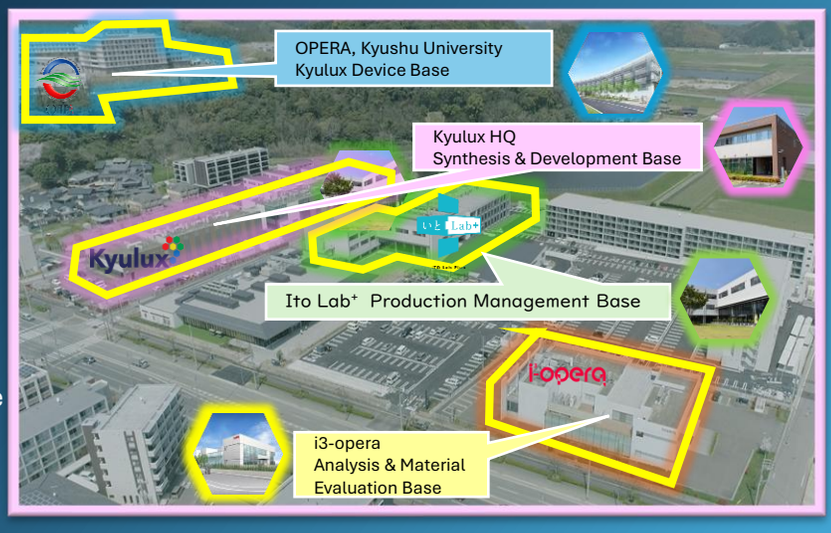
In 2024, Kyulux entered into a capital and business alliance agreement with Nippon Soda Co., Ltd. to solidify our partnership toward the world's first mass production and stable supply of TADF.

*DFT Calculation (Density Functional Theory): A computational method using quantum mechanics to predict the properties of molecules and materials. Since it does not require experiments, it serves as a material simulation technique that accelerates development speed. It is primarily used in the development of new materials, drug design, semiconductor research, and OLED studies.

3 OLED System Valley - Kyulux and Development Partners

Kyulux, based around Kyushu University, is advancing the practical application of TADF and Hyperfluorescence™ in collaboration with Kyushu University's cutting-edge Center for Organic Photonics and Electronics Research (OPERA) and Fukuoka i^3 Center for Organic Photonics and Electronics Research (i^3-opera).

Through joint research and commissioned development with OPERA, a world-class research hub for OLED technology, and i^3-opera, Kyulux utilizes extensive cleanroom facilities, state-of-the-art vacuum equipment, and deposition/analysis systems to develop new OLED materials and evaluate devices at a low cost.





Kyulux
Materializing the future of OLEDs

4 Efforts Toward Mass Production

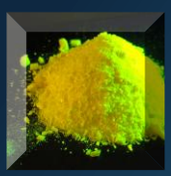
~ Aiming for Mass Production with a Fabless Model ~

To supply affordable and stable-quality materials, in 2023, Kyulux relocated and expanded our production management base to the collaboration town "Ito Lab+"- a research, commercial, and residential facility built adjacent to the headquarters, strengthening process development and quality assurance systems for mass production.

Recently, with support from JST, Kyulux have introduced 5L and 20L reaction equipment and are accelerating process development for mass production.

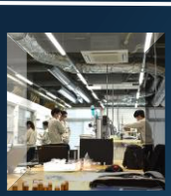
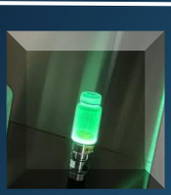
Production Management

Procure raw materials, properly manage chemicals, and build partnerships with contract manufacturers who will play a key role in the future.


Material Quality Analysis

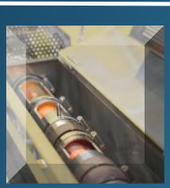
Conducting quality checks on materials and investigate the causes of defects while establishing a quality control system for future mass production.


Production Development

Manufacturing evaluation samples while advancing process development to establish production conditions for future mass production.





Quality Assurance and Safety & Environmental Management Office

Certified with ISO 9001:2015 in October 2019
[Scope of Application]
Business Development Department
Production Management Department
Quality Assurance Office



JQA-QMA16115
Production Management
Business Development
Design and Development of OLED Emission Materials

Working on strengthening compliance and preparing to respond to claims and defect analysis during mass production, in order to build a quality assurance system aimed at improving customer satisfaction.

5 Aim and Goals

Mission:

◇Kyulux will create the future of OLEDs using its TADF and Hyperfluorescene™ technologies

Vision:

◇Kyulux will commercialize its Hyperfluorescene™ technology and set an example for materials ventures worldwide

◇Kyulux will develop an "Organic Photonics Device System Valley" in Kyushu, Japan, for OLED devices and systems by encouraging entrepreneurs and supporting the creation of related start-ups

◇Kyulux will make use of advanced material technologies to develop innovative materials and applications to contribute to global welfare and wellbeing



Kyulux
Materializing the future of OLEDs



6 Awards and Prizes

- 2016: Red Herring Global Top 100 Winners
- 2018: Selected for The Ministry of Economy Trade and Industry Start-up Support Program “J-Startup” in Japan
- 2019: Trade and Industry Academic Startups Award, The Japan Minister of Economy
- 2019: Japan-US Innovation Awards Symposium Innovation Showcase
  Devices Technologies Category Winners / Grand Prix
- 2021: Distinguished Paper award of ICDT 2020
- 2023: Intellectual Property Achievement Award, The Minister of Economy, Trade and Industry, And more.

7 Finance

April	2016	Series A	1.50 billion yen	*$13.5 million
May	2019	Series B	3.48 billion yen	*$31.8 million
February	2021	Series B-Prime	3.62 billion yen	*$34.3 million
November	2023	Series C	4.72 billion yen	*$28.6 million

*Based on the exchange rate at the round's closing time

8 Strategic and Lead Investors

Samsung Display, LG Display, SONY Group, NAGASE, Kyushu University, Japan Display Corporation (JDI)

QB Capital, Celesta Capital, Shanghai Pudong Science and Technology Investment (PDSTI)

El Camino Capital, MCP Asset Management, Japan Science and Technology Agency (JST), and others.



9 Contribution to SDGs

Kyulux's Hyperfluorescence is a luminescent technology that contributes to the achievement of the Sustainable Development Goals (SDGs) by improving energy efficiency and reducing resource consumption, connecting to the future of both people and the planet.

Energy Efficiency Improvement (SDG 7: Affordable and Clean Energy)
Hyperfluorescence™ achieves significant energy savings compared to conventional OLEDs.
- Reduces power consumption by up to 33% in standard OLED displays.
- In large displays (e.g., televisions), by reducing the number of emission layers from three to two, it achieves up to 50% energy savings.

Resource Sustainability (SDG 12: Responsible Consumption and Production)
Unlike conventional phosphorescent OLEDs, Hyperfluorescence™ does not use rare metals such as iridium or platinum, thereby reducing environmental impact from mining and refining processes and promoting sustainable resource use.

Hyperfluorescence™, which is compatible with a wide range of applications including smartphones, wearable devices, televisions, and automotive displays, paves the way for a future that is energy-efficient and resource-friendly.

Kyulux supports the Sustainable Development Goals

2025@Kyulux,Inc.