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KOALA Tech Inc.

# Organic Laser Device R&D / Organic Synthesis Engineer

**Kyushu Univ. Deep Tech Startup**

## Job Information

**Hiring Company**
KOALA Tech Inc.

**Job ID**
1524764

**Industry**
Electronics, Semiconductor

**Job Type**
Permanent Full-time

**Location**
Fukuoka Prefecture, Fukuoka-shi Nishi-ku

**Train Description**
Chikuhi Line 1, Kyudai-gakken-toshi Station

**Salary**
4 million yen ~ 9 million yen

**Refreshed**
April 11th, 2025 00:00

## General Requirements

**Minimum Experience Level**
Over 6 years

**Career Level**
Mid Career

**Minimum English Level**
Business Level

**Minimum Japanese Level**
None

Business-level communication in either Japanese or English is OK

**Minimum Education Level**
Bachelor's Degree

**Visa Status**
Permission to work in Japan required

## Job Description

**Background of Recruitment**

As **XR devices and wearable healthcare devices** become **smaller and lighter**, our technology is expected to be a **key platform** that brings **new value to society**. We have already conducted **joint research and development** with **Mitsui Chemicals, Inc. and Sony Group Corporation**, and in the near future, we aim to **collaborate with global companies**.

With **accelerating technology development and business expansion**, we are now entering a critical phase where we will **fully launch business development efforts** targeting **display manufacturers and XR device makers**. To lead these efforts, we are looking for a **highly skilled engineer**.

Although we are still a **small team with limited resources**, your work will have a **direct and meaningful impact**. This is an **exciting opportunity** where you can **take ownership of your projects** and **see the results firsthand**. If you are passionate about bringing **a revolutionary Japanese technology to the world**, we invite you to **join us and shape the future!**

**Job Description**

We are seeking a **Materials Development Engineer** with expertise in **organic electronic materials design, synthesis, and characterization** to drive the development of **new organic semiconductor laser materials**. This position will play a key role in leading materials innovation and bridging the gap between **cutting-edge research and commercialization**.

**Key Responsibilities**

- **Design, synthesize, and evaluate new organic semiconductor laser materials** to enhance performance and stability.
- **Develop and improve testing and evaluation systems** for organic semiconductor laser materials.
- **Collaborate closely with the device team and external research partners** to design and develop innovative organic semiconductor laser technologies that achieve the highest device performance.

**Immediate Challenges & Focus Areas**

**Current Initiatives**

Our technology originates from **Professor Chihaya Adachi of Kyushu University**, a world-renowned expert in **organic EL (OLED) and TADF (Thermally Activated Delayed Fluorescence)**.

Based on **academic demonstrations published in 2019**, we established the **fundamental blue device technology in 2023**, achieving **both directionality and monochromaticity**. Currently, we are **rapidly advancing the development of green and red devices**.

By applying this technology to **next-generation microdisplays**, we aim to **significantly enhance optical systems**, making a major impact on the **AR/VR industry**. While we have focused primarily on **emission device design**, we now need **an experienced materials engineer** to help transition this **breakthrough research into practical display solutions**.

**Target Industries**

- **OLED Manufacturers**: Companies seeking to **enhance OLED display performance** and meet emerging market demands.
- **Material Suppliers**: Companies providing **organic materials** for OLED manufacturers.
- **Semiconductor Companies**: Firms involved in **circuit design and manufacturing** for **micro-OLED silicon substrates**.

**Our Approach**

- **Strategic IP Portfolio Development**: Systematically securing patents related to **OSLD (Organic Semiconductor Laser Display) technology**.
- **Joint Research with Alliance Partners**: Supporting **performance evaluation, prototyping, validation, and technology transfer**.
- **Technology Licensing**: Offering **licensing agreements** to facilitate the commercialization of OSLD technology.

**Mid- to Long-Term Challenges**

The **ultimate challenge** of this position is the **commercialization of organic laser technology**—an ambitious and groundbreaking endeavor.

We are working toward **real-world implementation and optimization** of organic lasers, ensuring they can be **widely adopted across industries**.

Your **expertise and leadership** will be **critical** in shaping the future of organic lasers, **creating new value**, and **delivering the world's first organic semiconductor laser devices** to the market.

Join us in **this historic challenge** and be part of a team that will **change the industry!**

**Why Join Us?**

At **KOALA Tech**, you will have the opportunity to engage in **cutting-edge research in lasers and organic electronics**, working alongside an **internationally diverse team** to develop **game-changing technology**.

You will also have access to **world-class research infrastructure**, including the **Kyushu University OPERA Center**, led by **Professor Chihaya Adachi**, a global leader in the OLED field.

We invite you to **join us in pioneering new markets**, **developing next-generation laser devices**, and **driving the commercialization of organic semiconductor laser technology**.

We have already **collaborated with Mitsui Chemicals and Sony Group** and plan to **expand partnerships with global corporations**.

As XR devices and **wearable healthcare technology** continue to evolve, our technology is expected to become a **key platform** enabling **lighter and more compact devices**.

This is an opportunity to **develop groundbreaking products** that have the potential to **revolutionize daily life** and **change the world**.

**Team & Diversity**

- **Engineering Team**: 4 members (Japanese, French, Iranian, and Indian engineers).
- **Company Diversity**:
  - **28% non-Japanese employees**.
  - **42% female employees** (as of October 2024, including executives).
  - A **highly skilled team** with **PhD holders and professionals from major corporations**.

**Work Location**

Fukuoka, Japan
Kyushu University Academic Research Collaboration Center, Room 215
4-1 Kyudaishinmachi, Nishi-ku, Fukuoka City

**Employment Type**

**Full-time Employee**

**Trial Period**

**6 months**

**Salary & Benefits**

**Estimated Annual Salary**

**¥4,000,000 – ¥9,000,000** (Stock options included).

**Estimated Monthly Salary**

- **¥4,008,000 annual salary** → **¥334,000/month** (Base salary: ¥289,600 + Fixed OT: ¥44,400).
- **¥9,000,000 annual salary** → **¥750,000/month** (Base salary: ¥650,400 + Fixed OT: ¥99,600).

**Overtime Pay**

Includes **20 hours of fixed overtime** per month. Additional overtime is **compensated separately**.

**Work-Life Balance**

Our **engineering team currently works with almost no overtime** . We value **efficiency and work-life balance**, ensuring that employees can **maximize productivity while maintaining a healthy lifestyle**.

**Bonuses**

None

**Salary Increases**

Annual review every **May**, based on performance.

**Remote Work**

**Primarily on-site work**.

**Hiring Process**

1. **Document Screening**
2. **Interviews (2 rounds)**

    - **First interview**: Online
    - **Second interview**: In-person
3. **Final Offer Discussion**
4. **Aptitude Test Required**

**For candidates outside Fukuoka:**

- We offer **flexible interview options**, including **online and in-person interviews**.
- Candidates are **required to visit the Fukuoka office at least once** for the final interview.
- **Travel expenses for interviews** will be covered.
- **Relocation support** is negotiable.

## Required Skills

**Required Requirements**

Applicable to any of the following

Experience in at least two of the following
Experience in synthesis of organic materials
Experience in patent application, search and analysis related to the above technologies (welcome is OK)

Experience in researching organic EL as a student or during post-doctoral period

**Welcome requirements**

Relevant experience in the research field of OLED materials or laser dyes.
・Master's degree or above in research related to condensed matter physics, applied physics, optical engineering, electronic engineering, photochemistry, or physical chemistry.
・Must be comfortable communicating in English. (It is OK if you can communicate with engineering team members using translation tools and dictionaries)
Able to work in a results-oriented environment and be flexible to changing priorities while being aware of work deadlines.
・Must have good documentation skills (internal technical reporting, reporting to external partners).

## Company Description