June 8, 2026
Dexerials Corporation

Dexerials launches joint research with Dutch photonics research institute PITC

Dexerials Corporation (Headquarters: Shimotsuke-shi, Tochigi, Japan; Representative Director and President: Yoshihisa Shinya; hereinafter "Dexerials") announces that it has initiated joint research in the field of photonics with the Photonic Integration Technology Centre (PITC), a photonics R&D institute based in the Netherlands.

In recent years, the rapid adoption of generative AI has significantly increased power consumption in data centers, which has become a global challenge. As a next-generation technology capable of addressing this issue, photoelectronic fusion technologies*1, including Co-Packaged Optics (CPO) have been gaining increasing attention worldwide. Against this backdrop, Dexerials has positioned the photonics domain, including optical semiconductors, as a growth driver*2 and is accelerating its research and development efforts while strengthening its production capabilities.

Through this joint research, under a TNO-led research program, Dexerials will combine its strengths in functional materials and optical semiconductors with PITC's R&D infrastructure. By leveraging these complementary capabilities, the partners aim to strengthen the technological foundation of the photonics domain in anticipation of future market expansion.

Dexerials is committed to accelerating growth in this domain as part of its Mid-term Management Plan 2028 "Achieving Evolution," thereby contributing to the development of the industry as a whole, realizing a sustainable society, and enhancing corporate value.

*1 Optoelectronic integration refers to next-generation technologies that combine electrical and optical signals to enable high-speed and energy-efficient communication and information processing. Applications are currently being gradually implemented in areas such as data centers.

*2 FY2024 to FY2028 Mid-term Management Plan "Achieving Evolution" Updates

1. Our Initiatives for Industry–Academia Collaboration at Our Netherlands Site

Dexerials Europe B.V., one of Dexerials' overseas subsidiaries, operates marketing bases in both the Netherlands and Germany. In addition, Dexerials has established a satellite office within the High Tech Campus Eindhoven (North Brabant, the Netherlands), an open innovation hub designed to accelerate the transition from technological development to commercialization through integrated collaboration among industry, government, and academia.

Leveraging this office as a hub, Dexerials actively promote close collaboration with companies, universities, and research institutions in the fields of photonics and advanced materials. Through these efforts, Dexerials is building strong partnerships aimed at generating new technologies and advancing their practical application.

2. About Photonic Integration Technology Centre (PITC)

PITC is an open R&D center that accelerates the industrial application of photonic integrated circuits (PICs) [*3]. Founded by Eindhoven University of Technology (TU/e), the University of Twente (UT), TNO, and PhotonDelta, PITC brings together researchers, leading experts, and industrial participants in a collaborative environment focused on pre-competitive innovation, knowledge exchange, and technology transfer.

Official website: PITC

*3 Photonic Integrated Circuit (PIC): A device that integrates optical functions such as generation, transmission, modulation, and sensing of light onto a single chip, serving as a core technology for realizing photoelectric fusion technology.

3. About Netherlands Organisation for Applied Scientific Research (TNO)

TNO is an independent research organization established by an Act of the Dutch Parliament in 1932. As the largest applied research organization in the Netherlands and one of the largest in Europe, TNO connects scientific knowledge with practical application, helping businesses and governments turn innovation into economic and societal impact.

Official website: Innovation for life | TNO

<Company Profile>

Dexerials Corporation is a functional materials manufacturer specializing in the development, manufacture and sale of electronic components, bonding materials and optical materials. The Group includes subsidiaries engaged in the development and manufacture of photonics products, such as optical semiconductors, and it is committed to achieving sustainable growth and enhancing corporate value. Also, as a starting point in contributing toward the realization of further growth and a sustainable society, the Company has defined its Purpose: "Empower Evolution. Connect People and Technology." as explained in the website section "About Dexerials" under "Corporate Philosophy, Vision and Purpose."

Company name: Dexerials Corporation

Head office: 1724 Shimotsuboyama, Shimotsuke-shi, Tochigi

Representative: Yoshihisa Shinya, Representative Director and President

Established: June 20, 2012

Official website: https://www.dexerials.jp/en/

LinkedIn: https://www.linkedin.com/company/dexerials-corporation/