**SCGC Collaborates with Synchrotron Light Research Institute to Accelerate Innovations**

**in Green Polymers and Chemicals, Focusing on Low-Waste, Low-Carbon Concept**

**Shifting Towards Low-Carbon Society, and Addressing Megatrends**

20 March 2024: **SCG Chemicals, or SCGC,** a leading integrated chemical player in the region, is committed to business growth alongside sustainable development. It has joined hands with **the Synchrotron Light Research Institute (Public Organization),** under the supervision of the Ministry of Higher Education, Science, Research, and Innovation, to continue its academic collaboration aimed at developing polymer and chemical innovations. Recently, they have jointly signed a “**Memorandum of Understanding and Service Agreement for the Development of Polymer and Chemical Innovations for Decarbonization, Circular Economy, and Future Industrial Applications.”** The goal is to enhance SCGC's capability in researching and developing green polymer and chemical innovations, accelerate the push towards commercial innovations to respond to megatrends, create competitive opportunities in the global market, and benefit the industrial sector. It also prepares for a low-carbon society in the future.

**Dr. Suracha Udomsak, Chief Innovation Officer and Executive Vice President of SCG Chemicals Public Company Limited, or SCGC,** said, "SCGC is dedicated to developing green innovations and solutions, such as green polymers and innovations aimed at reducing greenhouse gas emissions, in response to climate change. We are moving towards a low-carbon society with low waste and low carbon concept by continuously collaborating with globally leading organizations and research institutes. The Synchrotron Light Research Institute, the only facility in Southeast Asia equipped with the largest and most advanced synchrotron light source, is capable of analyzing the material structure at the molecular and atomic levels. SCGC utilizes synchrotron light technology to analyze the crystal structure of polymers at the nanometer level, which helps accelerate the invention and development of commercial innovations. Examples include the development of SMX™ Technology and the production of high-quality PE resins for manufacturing high-pressure resistant pipes. These innovations not only help reduce plastic usage but also extend the service life of products and reduce carbon dioxide emissions into the atmosphere. The signing of this memorandum of understanding will not only enhance SCGC's research and development in polymer and chemical innovations but also accelerate the creation of commercial innovations to meet megatrends, provide competitive opportunities in the global market, benefit the industrial sector, and prepare for a low-carbon society for a sustainable environment."

“Throughout collaborations with the Synchrotron Light Research Institute, SCGC has continuously developed innovations to produce high-value products for the global market, resulting in over ten patents being registered and research works being published in international academic journals, such as Industrial & Engineering Chemistry Research, ELSEVIER, and ACS Applied Polymer Materials," said the Chief Innovation Officer of SCGC.

**Prof. Dr. Saroj Rujirawat, Director of the Synchrotron Light Research Institute**, said, "The institute has a mission to research, provide services, promote, and disseminate learning on synchrotron light technology and its applications. This aims to enhance research quality and foster innovation to improve the country's competitive edge. For this reason, the institute has always placed a high priority on academic collaboration. This current collaboration between SCGC and the institute will involve research and development in polymer products using synchrotron technology and other areas related to the missions of both organizations."

"In addition, there will be support for analysis, examination, and testing through the use of instruments, equipment, laboratories, and other factors related to research, utilizing synchrotron light and related technologies. This includes support for academics, training, and collaboration in technical and engineering aspects, as well as undertaking other mutually agreed upon activities. Another form of collaboration is signing a research service agreement between Thai Polyethylene Company Limited, a subsidiary of SCGC, and the institute. This agreement supports continuous research on polymer structures using synchrotron light, enabling sustainable utilization and development that creates added economic value for the country," concluded the Director of the Synchrotron Light Research Institute.

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**About SCGC**

SCG Chemicals, or SCGC, is a leading integrated chemical player in ASEAN, committed to business growth alongside sustainability. With strategic bases in Vietnam, Indonesia, and Thailand, it offers a full range of petrochemical products, ranging from upstream production of olefins to downstream production of three main plastic resins: polyethylene, polypropylene, and polyvinyl chloride.

SCGC drives the economy in ASEAN and enhances the quality of life for people, aiming to become “the leading integrated chemical business for sustainability” in line with the Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG) principles. It emphasizes the efficient use of resources according to the principles of the circular economy, with a focus on developing green innovations and solutions, such as green polymer innovations under the SCGC GREEN POLYMERTM brand, including technologies that address low carbon emissions to achieve carbon neutrality.

Furthermore, it develops High Value Added (HVA) products and services to respond to megatrends, such as joint investment in the production of conductive components for lithium-ion battery electrodes for electric vehicles (EVs) and changes in infrastructure due to urban expansion.

For more information, visit <https://www.scgchemicals.com>

**About the Synchrotron Light Research Institute**

The Synchrotron Light Research Institute (Public Organization), under the supervision of the Ministry of Higher Education, Science, Research, and Innovation, plays a central role as the country's research institution. Its mission is to research, develop, and provide synchrotron light for applications in various research fields. The institute is committed to excellence in synchrotron light technology and supports the country in developing the economy and improving the quality of life for its people.

The institute aims to develop the capabilities of the synchrotron light source, or the “Siam Photon Source,” to operate at full efficiency and continuously improve the machine's performance. This is to be ready to expand its services to the government sector, various industries in Thailand, and meet the increasing needs of users, with the goal of “Making Tomorrow Better” by enhancing and improving the quality of life for people towards a better future.

The synchrotron light source at the Siam Photon Laboratory in Nakhon Ratchasima Province is the largest in ASEAN, with an electron energy of 1.2 GeV (1.2 billion electron volts).

For more information, visit <https://www.slri.or.th/>.