JCIA Publishes Report on carbon-Life Cycle Analysis (c-LCA):

"Innovations in Greenhouse Gas Reductions"
- Life Cycle Analysis of Chemical Products in Japan -

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Japan Chemical Industry Association

The Japan Chemical Industry Association (JCIA) has announced the publication of its new report, "Innovations in Greenhouse Gas Reductions: Life Cycle Analysis of Chemical Products in Japan," now available in English, regarding measures the chemical industry has taken to reduce the effects of global warming.

The c-LCA evaluates the contribution in quantity to CO_2 emission abatement for nine products comprised of chemicals to be manufactured in 2020 until the end of their life cycle. These nine products, for which past data is available, were selected based on renewable energy, improved fuel economy through weight reduction, and energy-saving efforts, and include: photovoltaic power generation, wind power generation, automobiles, airplanes, and LED bulbs. CO_2 emissions of the nine products were compared with the emissions from conventional products.

The analysis showed that, while the CO_2 emissions rates of the chemicals in the eight analyzed products, except seawater desalination equipment which is mainly used outside of Japan was about 4.75 million tons during their life cycle from extraction to manufacture and to disposal, the chemicals are key materials for the eight products, and help contribute to the reduction of about 110 million tons of emissions in Japan. Although the non-chemical components of the finished products also contribute to the reduction of CO_2 emissions, no method is currently available to quantify the contribution of such components.

Before publication, a committee consisting of four university professors and associate professors with an expertise on global warming issues convened to review the report.
The committee's evaluation is also included in the report and suggests that, in order to promote the reduction of CO_2 emissions globally, it is important for measures to be taken based on a total optimization perspective, considering all aspects of the life cycle of all products.

Full text of the report is available at: http://www.nikkakyo.org/upload/3153_4628.pdf

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