



Press release

Communiqué de presse

energie atomique - energies alternatives

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## Arkema and CEA set up two new joint laboratories dedicated to micro-electronics and organic electronics

Arkema and CEA are to extend their existing collaboration in photovoltaics to the field of micro-electronics and organic electronics by setting up two joint research laboratories. These public-private mixed laboratories will enable the development of new ultra high performance materials and their integration within manufacturing processes in growth areas of the electronics sector in France.

Both laboratories will pool Arkema's expertise in the design and production of high performance polymers with the competences of CEA researchers in the design and processes involved in the development of electronic components.

The CEA-Leti (*Laboratoire d'Electronique et de Technologie de l'Information*) and CEA-Liten (*Laboratoire d'Innovation pour les Technologies des Energies Nouvelles et les nanomatériaux*) laboratories constitute world-class applied research centers, in microelectronics and information technologies for the former, and in new energy technologies for the latter.

As part of its collaboration with Leti, Arkema will draw on its expertise in polymer nanostructuring to produce new materials designed to optimize the performances of silicon components and significantly reduce their manufacturing costs in next generation integrated circuits.

As part of its collaboration with Liten, Arkema, which markets a group of leading technical polymers (fluorinated, piezoelectric, nanostructured thermoplastic polymers), will be able to meet the technological challenges of the large-area printed electronics sector (flexible screens, intelligent packaging and textiles, photovoltaic panels), such as lifetime of the systems, cost of manufacture, and integration of several functions onto a single support. In fact, the use of organic materials, rather than silicon, opens up a new field of printable, transparent and flexible components that can be integrated into large-area printed electronic products.

« These partnerships between Arkema and CEA are ideally suited to the development of new materials used in lithography and in organic electronics. These collaborations also illustrate a new focus of research for our Group, namely micro-electronics, and are a tangible demonstration of our ability to innovate in high added value application areas », states Christian Collette, Vice President Research & Development at Arkema.

www.arkema.com





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« The creation of both these joint laboratories is ample illustration of CEA's mission in supporting the development of French ouiindustrial sectors », explains Jean Therme, Director Technological Research at CEA. « The combination of CEA's technological resources in micro-electronics and renewable energies, with Arkema, a world leader in specialty chemicals, will spawn innovations, and ultimately will boost competitiveness ».

Both these research structures will help expand the technological offering of the French electronics sector and its competitiveness on the world scene.

## About Arkema

A global chemical company and France's leading chemicals producer, **Arkema** is building the future of the chemical industry every day. Deploying a responsible, innovation-based approach, we produce state-of-the-art specialty chemicals that provide customers with practical solutions to such challenges as climate change, access to drinking water, the future of energy, fossil fuel preservation and the need for lighter materials. With operations in more than 40 countries, some 13,200 employees and 9 research centers, Arkema generates annual revenue of  $\in$ 5.9 billion\*, and holds leadership positions in all its markets with a portfolio of internationally recognized brands. **The world is our inspiration**.

\*Sales and headcount for continuing activities at end 2011, excluding vinyl products activities, which are part of a divestment plan.

## About CEA

The Commissariat à l'énergie atomique et aux énergies alternatives (CEA) is a public research body that is active in four main areas: low-carbon energies, information technologies and health technologies, very large research infrastructures (Très Grandes Infrastructures de Recherche - TGIR), defense and global security. Drawing on first-rate fundamental research and renowned expert capabilities, CEA is involved in the creation of collaboration projects with many academic and industrial partners. With its 16,000 researchers and employees, CEA is a major player in European research, with a growing presence around the world.

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