

Annealsys and Femto-ST joint development program for alkali niobates

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Annealsys and Femto-ST are pleased to announce their new joint development program for the development of Direct Liquid Injection deposition processes of alkali niobate thin films, dedicated to the acoustic, optical and energy harvesting applications.

An Annealsys MC-100 DLI-CVD system has been installed at micro-/nanotechnology center MIMENTO of Femto-ST for:

- The study of different chemical precursors of alkali metals and niobium in order to define the best combination allowing the deposition of thin films of alkali niobates in a reproducible way,
- The synthesis of epitaxial thin films with controlled in-plane and out-of-plane orientations by a direct liquid injection vapor deposition technique,
- The optimization of the annealing conditions in order to tune oxygen nonstoichiometry and microstructure of the synthesized layers by using the Rapid Thermal Annealing system,
- The industrialization of the process of depositing of thin layers of alkali niobate with controlled alkali stoichiometry on industrial substrates of large sizes (up to 100 mm diameter).

About Femto-ST

The FEMTO-ST Institute is a joint research institution, created on January 1st, 2004. The institute is under the quadruple authority of the Université de Franche-Comté (UFC), the Centre National de la Recherche Scientifique (CNRS), the Ecole Nationale Supérieure de Mécanique et Microtechniques (ENSMM) and the Université de Technologie Belfort-Montbéliard (UTBM).

FEMTO-ST associates “Science and Technologies of Information and Communication” (STIC) with “Sciences for the Engineer” (SPI). The range of the institute’s scientific themes covers optics, acoustics, the micro-/nanosciences and systems, time frequency, automatic control, computer science and mechatronics. The institute is supported by high-level technologies, equipment and platforms, particularly the micro-/nanotechnology center MIMENTO (microfabrication for mechanics, nanosciences, energy and optics). Visit FEMTO-ST web site at www.femto-st.fr

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About Annealsys:

Annealsys is a leading manufacturer of RTP and DLI-CVD / DLI-ALD systems for research and niche production applications in the fields of silicon and compound semiconductors, nanotechnologies, MEMS, solar cells, glass, etc. Annealsys has developed a range of RTP systems with high temperature and high vacuum capabilities and some unique features like the fast cooling system. Direct Liquid Injection (DLI) CVD and ALD systems offer the highest process versatility for development of new materials. Visit Annealsys web site at www.annealsys.com

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