

# RIBER

Press release

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## Research MBE system ordered in France

*Bezons, September 14th, 2015 – 5:45 pm – RIBER, the global leader for molecular beam epitaxy (MBE), is announcing an order for a COMPACT 21 system with the French national center for scientific research (CNRS) heteroepitaxy and applications research center (CNRS-CRHEA, UPR10)*

This latest sale once again confirms the market's adoption of the COMPACT 21, the top-selling model for this range of systems and the market's best-performing thin-film deposition system. The COMPACT 21 has been chosen for its high level of flexibility, its reliability and its capacity to produce extremely complex and very high-quality materials on a reproducible basis.

Delivered in 2015, this machine will be dedicated to the Zoterac project, a European project funded as part of the FET-OPEN 2014-2015-RIA call. It will enable the CRHEA to develop very high-performance zinc oxide-based materials for TeraHertz laser and detector applications. These THz detectors and sources will make it possible to develop future solutions for medical diagnosis, astrophysics imaging or security.

For Dr. Jean-Michel Chauveau and his team at the CRHEA: "RIBER's Compact 21 system offers a very interesting combination of performance and ease-of-use, thanks to the latest software developments. The system has well-established references within the MBE community, particularly for similar applications to those being considered by the CRHEA. This equipment will strengthen CRHEA's MBE research capabilities, from the end of 2015, offering an optimum infrastructure for ZnO film deposition".

### About the CRHEA

Located in the Sophia Antipolis technology hub, the laboratory has chosen to focus its activities on epitaxy-based materials growth: thick, thin, quantum heterostructures (wells, wires and boxes) or even nanostructures. Today, CHREA's semiconductor material growths focus on wide band gap semiconductor research: gallium nitrides (GaN, InN, AlN and alloys), zinc oxide (ZnO) and silicon carbide (SiC). While closely related in principle, diluted nitrides (InGaAsN) are in fact small band gap materials and make up the fourth theme researched by CRHEA.

The laboratory has an extensive range of growth techniques for synthesizing these materials, for use either to study their fundamental properties or to develop devices.

In both cases, they cover diverse fields, from electronics to optoelectronics and nanotechnologies. The laboratory's epitaxy teams are therefore organized around these three core areas.

The technological platform (CRHEATEC) further strengthens the CRHEA's capabilities, enabling it to produce test devices on site to validate the properties of materials and structures developed in the laboratory.

The CRHEA has built up strong collaborations with academic laboratories and industrial firms in France and internationally to use the materials developed for specific physics, optics, magnetism and electric transport research or advanced systems. This openness to the outside world, particularly the industrial sector, is also reflected in the joint laboratories and partnerships established with industrial operators.

### About the Zoterac project:

**The Zoterac project, coordinated by the CRHEA laboratory, has been selected as part of the Horizon H2020 program.**

Launched on September 1st, 2015, the Zoterac project - Zinc oxide for TeraHertz Cascade Devices - is being funded by the European Commission in connection with the Horizon H2020 program and the FET-OPEN (Future Emerging Technology) call under reference 665107. Coordinated by the CRHEA, with a budget of €3.8 million over four years, this project has brought together five partners: ETH Zurich, ISOM Madrid, TU Wien, IEF-Paris Sud and the CRHEA. Zoterac offers a new approach built around zinc oxide-based (ZnO) semiconductor nanostructures to develop THz emitters and detectors delivering unprecedented performance capabilities at room temperature. These new components will open up opportunities for a wide range of applications: from medical diagnosis to astrophysics imaging, quality control and security.

### About RIBER:

Riber designs and produces molecular beam epitaxy (MBE) systems as well as evaporation sources and cells for the semiconductor industry. This high-tech equipment is essential for the manufacturing of compound semiconductor materials and new materials that are used in numerous consumer applications, from new information technologies to OLED flat screens and new generation solar cells.

Riber recorded €16.6 million in revenues for 2014, with 96 employees at the end of 2014. The company is ISO9001 certified. Riber is listed on NYSE-Euronext Paris, Compartment "C", and is part of the CAC Small, CAC Mid & Small, CAC Technology and CAC T. HARD. & EQ indices. Riber is one of the best-rated companies in the Gaïa-index, the leading SRI index for French mid-caps. Riber is eligible for SME share-based savings schemes.



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Reuters: RIBE.PA  
Bloomberg: RIB: FP  
BPI France-approved innovative company

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