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Helmholtz Centre Berlin relies on Leybold Optics technology

Order awarded for Inline-Sputter-Tools at the PVcomB

After a Europe-wide tender process, the Helmholtz Centre Berlin for Materials and Energy (HZB) awarded the order for two depositions systems of the type A600V7 to Leybold Optics GmbH, Germany at the end of May. The systems are to be supplied to the Competence Centre for Thin Film and Nanotechnology for Photo-voltaic Berlin (PVcomB).

The success of the thin film technology in photovoltaic systems is heavily dependent on the speed with which relevant laboratory developments can be transferred to efficient industrial production systems. PVcomB encourages this technology transfer with an unique combination of basic research and industrial research & development. The ordered systems from the globally recognised thin film specialist Leybold Optics are important components of the two research lines for thin film silicon and CIGS that PVcomB is currently setting up in Berlin. Both pilot lines will produce modules of the size 30 cm x 30 cm in order to examine issues relating to the industrial production. At the same time, the basic research work will come up with alternatives that can be tested in every process and analysis step.

The Inline-Sputter-Tools A600V7 from Leybold Optics satisfy the stringent requirements of the client who wants to prepare and continuously further develop thin film solar modules in a forward-thinking state-of-the-art environment in CIGS and thin film silicon (a-Si/ μ c-Si) technology. The sputter systems are used to produce the various contact layers and the precursor layer for CIGS absorbers that are then applied to substrates such as glass.

The decisive factor for awarding the contract to Leybold Optics was that the Inline-Sputter-Tools can be easily integrated into an existing building and in existing infrastructure. The proven technology of the A600V7 Inline-Sputter-Tools and also Leybold Optics' years of experience with deposition procedures for photovoltaic applications meet the requirements of the PVcomB. Another important factor is also the high flexibility in terms of component integration and future upgrades. In addition to the excellent price-performance ratio, the A600V7 stands out thanks to its low operating and maintenance costs. Compared to other research and development systems, the tool has a much higher throughput because it is able to coat

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two substrates at the same time. Results that can be derived from work performed on the A600V7 can be simply transferred to industrial production lines.

Image caption:

Inline Sputter System A600V7 for R&D and pilot production

Image source:

Leybold Optics GmbH, Alzenau/Germany

Leybold Optics GmbH

Leybold Optics GmbH is one of the world's leading suppliers of vacuum technology. It also develops processes and manufactures complex high-end coatings. This reputed thin film specialist sets milestones in the fields of sputtering, PEVCD, plasma assisted evaporation, automation and software. It is organised into two divisions: Optics and Glass & Solar. The Glass & Solar division portfolio comprises vacuum systems for the photovoltaic industry and machines that are used to coat architectural glass, displays and other large-area applications. The Optics division markets deposition systems for precision optics, ophthalmic lens coating, the automotive and the electronics industry.

The foundation stone of its success was laid over 160 years ago by the founders and inventors Ernst Leybold and Wilhelm Carl Heraeus. Their pioneering spirit and dedication to research and the development of new production procedures is reflected in the market standards that have gained worldwide recognition since the company was founded. Today, Leybold Optics, which is traditionally committed to innovation and quality, is a global company that has more than 500 employees across the world.

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PVcomB

The Competence Centre for Thin Film and Nanotechnology for Photovoltaic (PVcomB) is a joint initiative by the Helmholtz Centre Berlin for Materials and Energy (HZB) and the Technical University Berlin. PVcomB is a 100% subsidiary of the Helmholtz Centre Berlin for Materials and Energy (HZB). PVcomB is currently focussing on the operation of two industrial research lines for solar modules in the format 30 cm x 30 cm based on thin film silicon and CIS/CIGSe. PVcomB offers the industry R&D cooperations and services such as analyses and further training. These services are based on the results of the excellent basic research work by the Helmholtz Centre Berlin and the TU Berlin in the thin film photovoltaic field. PVcomB's goal is to continuously expand the limits of what is industrially feasible.

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Links and prints to the agency, please.