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Fraunhofer FEP presents new vacuum coating processes at SVC TechCon 2013, USA

Fraunhofer FEP will introduce newest developments in vacuum coating technology at the international vacuum conference SVC TechCon 2013 on 22–24 April 2013.

The Fraunhofer Institute for Electron Beam and Plasma Technology FEP will present from 22–24 April 2013 in Providence, Rhode Island, USA, new and highly efficient processes for coating of large areas, such as arcPECVD (hollow cathode arc PECVD), plasma-activated high-rate evaporation using a dual crucible and the sputtering of Indium-free transparent conductive coatings. All three technologies are ready for industrial utilization.

Fraunhofer FEP in recent years advanced the deposition of niobium-doped titanium oxide layers as an Indium-free alternative for transparent conductive electrodes towards an industrially feasible and cost-efficient process. Thus, the glass refinement can be applied in a stable and reproducible process onto large-area surfaces. Dr. Manuela Junghähnel, Senior Scientist and expert for TCO coatings at Fraunhofer FEP, is going to display the properties of niobium-doped titanium oxide layers and features of the new process for glass refinement in her presentation on April 22.

Furthermore, Fraunhofer FEP has developed the arcPECVD process, a roll-to-roll low-pressure technology with very high coating rates, which can be combined easily with other vacuum processes in one web coater due to the low working pressure. Achieving a very good productivity of over 2000 nm·m/min, barrier layer systems with an extremely high barrier property can be obtained in one pass. However, also other layers, such as siliceous interlayers for reducing layer tension in optical layer stacks have been already realized. In his presentation on April 24, Dr. Steffen Günther, specialist for PECVD processes at Fraunhofer FEP, will go into more detail about the arcPECVD process.

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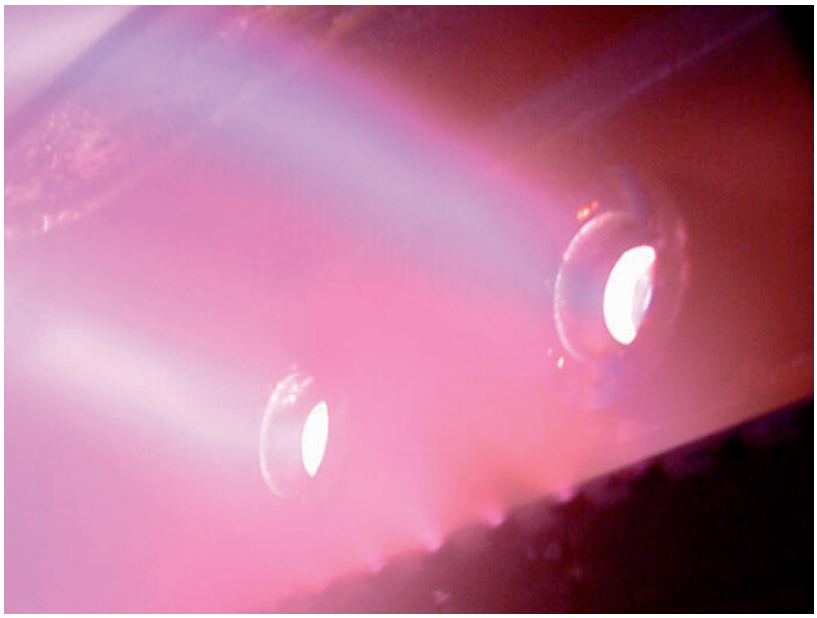
Introducing the dual crucible for the plasma-activated high-rate deposition Fraunhofer FEP succeeded in developing a powerful plasma process with long-term stability for coating relatively thick layers of high melting point materials in an economical way. Dr. Bert Scheffel, Scientist at Fraunhofer FEP, will discuss the benefits of the technology in his presentation on April 22.

The scientists will be glad to answer questions on April 23–24 at the booth no. 220 of Fraunhofer FEP. Information and exhibits regarding further surface refinement technologies of Fraunhofer FEP will be as well available at the booth.

More information can be found under:
www.fep.fraunhofer.de/en/events/svc_2013.html



Highly efficient vacuum coating process of Fraunhofer FEP