

LIVE! Solayer demonstrates ultra-short time sintering of printed electronic samples at Booth # 516A - LOPEC 2017

In 2017, Solayer GmbH will exhibit for the first time at LOPEC to showcase the new products and services for large-area coating, organic and printed electronics.

Sintering equipment for Printed Electronics



With our expertise in Flash Lamp Annealing (FLA) technology, we have demonstrated:

- Low energy: Sintering of printed inks on glass, paper, textiles and plastic substrates
- Medium energy: Post-treatment of TCOs ITO, AZO, IZO and IGZO
- 3. **High energy:** Dopant activation and recrystallization in microelectronics
- 4. Up to 75% reduction in sheet resistance of TCO layers
- 5. Up to 90% in transmittance of TCO layers
- 6. Up to 80% energy savings
- Significantly lower process time compared to conventional RTP

Solayer offers Flash Lamp Annealing (FLA) equipment, FORNAX, for drying, sintering and crystallization of ultrathin layers on heat sensitive substrates (PET, paper, glass, textiles etc). The novel annealing technique, which is based on pulsed lighting technology in the (sub) millisecond range allows an innovative thermal treatment to significantly improve layer properties. Within printed electronics, flash lamp annealing aids in the sintering of nanoparticles into conductive layers. With possibility to customize and adapt to a multitude of applications, our FLA systems are ready for integration in atmospheric coating (e.g., functional printing, spray coating) and vacuum deposition tools.

Why Fornax FLA?

- Cost-efficient process that reduces overall thermal budget
- Ultra-short pulses heat up surface to 2000 °C
- Scalable treatment area 50 x 50 mm² to 3500 mm width
- Temperature sensitive substrates treatable (Paper, textiles, PET, ...)
- Single and multi-flash operation
- Air and water-cooled solutions
- Highly versatile technology integrated to vacuum and atmospheric processes

ABOUT SOLAYER

SOLAYER GmbH is a German-based surface technology company that specializes in thin-film coating and layer modification. Solayer develops and manufactures tailor-made equipment and processes in close cooperation with international partners. Plasma pre- treatment, magnetron sputtering, PECVD, ALD and RTP with Flash Lamp Annealing are our core technical competencies. The portfolio of Solayer includes components and tools for laboratory research, pilot production and mass production.

For more information, please contact <u>senthil.vinodh@solayer.com</u> or visit <u>www.solayer.de</u>