

# Press release

## FOR IMMEDIATE RELEASE

### OrelTech to launch technology for metal deposition in ambient conditions.

**Berlin, October 13, 2023** – OrelTech, a leading innovator in metallization technology, proudly announces groundbreaking developments in metal deposition and coating: The company has developed the instantaneous deposition of pure platinum and other precious metals under atmospheric conditions, that is, in the absence of vacuum. The innovation is based on OrelTech's established metallization technology, which uses chamber plasma (i.e. an oxygen-reduced environment) to convert the proprietary OTech metallization liquids into pure metal.

At next week's **TechBlick "The Future of Electronics RESHAPED" conference**, taking place **October 17-18, 2023 in Berlin**, OrelTech will make a **live demo** of the process (visit Booth A2).

The technology shown at the fair is OrelTech's new **Ambient Rapid Metallization Process (ARM Process)**, which achieves surface metallization quickly, efficiently, and in *ambient room conditions*. It is based on a plasma machine adapted especially for OrelTech's ARM Process by Italian producer **NADIR Plasma & Polymers Srl**. The newly developed device ingeniously combines both atmospheric plasma and aerosol technology within a single nozzle. This innovative approach simplifies the metallization process, making it both easy to work with and highly relevant to many markets, including catalytic layers for energy generation, sensing electronics, protective layers, PCBs and many more. ARM is not only environmentally friendly but also highly scalable. Currently compatible with OrelTech's metallic ink catalog, such as Silver, Gold, Platinum, and Palladium, ARM sets the stage for the exploration and direct application of previously elusive metals and metal combinations in the future.

OrelTech envisions ARM as a game-changer across multiple industries, from electronics to energy and catalysis. The possibilities for further development using this pioneering process are limitless. With ARM, **applying metal coatings becomes as simple as air brush painting**.

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If you need more information about OrelTech or our products, please contact our Commercial Director **Robert Rosa** who is happy to answer any and all questions.

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### The long path to atmospheric plasma metallization culminates in new OTech ATMOS ink family

OrelTech is excited about this groundbreaking innovation which marks a major milestone on a multi-year journey. CTO and co-founder Konstantin Livanov says: “Customers and fans of our technology have asked us for years ‘Do we need the plasma chamber?’ The answer was ‘yes’ for a long time. Now there is an atmospheric process as an alternative - and it’s a great one for so many industrial applications.”

After years of anticipation and inquiries, OrelTech is delighted to demonstrate that its unique metallization process works also with atmospheric plasma. The company collaborated closely with multiple atmospheric plasma manufacturers including Nadir, SurfX and Roplass to conduct exhaustive research to understand the distinctions and nuances between their devices. There are currently several plasma systems that can turn OrelTech’s unique liquids into pure metal. To that end, following their demo at Techblick, OrelTech will launch a completely new ink family **OTech ATMOS**. These inks are meticulously formulated to integrate with *many commercially available atmospheric plasma nozzles*, offering enhanced versatility and compatibility.

OrelTech remains committed to driving innovation and redefining possibilities in the field of metallization. Join us on this exciting journey into the future of surface coating and discover how these cutting-edge technologies are reshaping industries.

#### About OrelTech:

OrelTech, a Berlin-based metallization specialist, pioneered a novel metallization technology that enables the deposition of thin, high-purity, functional metal layers onto many different surfaces, including temperature-sensitive plastics, fabrics, paper, composites, and active organic materials. The proprietary technology consists of both, a novel particle-free ink formulation and using Argon plasma for metal conversion. This combination of digital, additive deposition (e.g. ink jet) and low-temperature curing enables path-breaking innovations in a variety of sectors spanning electronics, energy generation (PV, electrolyzers/fuel cells), electrochemical sensors, PCB production and automotive. Technology advantages are not only layer properties and metal economy, but also energy use, chemical waste reduction and low capex. OrelTech is committed to pushing the existing boundaries of metallization in several industries.

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