

## The compagny 3D-Oxides

### Activity

Since 2009 we develop eco-sustainable thin film materials with enhanced or disruptive properties for :

- Integrated Optics and Photonics
- Micro and Nanoelectronics
- Cleantechs and Biotech

### Team

Highly qualified and open minded professionals with top level expertise in a wide range of transversal fields (Physics, Chemistry, Materials and Engineering).

We love our jobs, are delighted to address difficult challenges and will take great care to reach the fixed objectives.

## Technology

### Chemical beam vapour deposition (CBVD)

CBVD is a thin film deposition technique involving the decomposition of chemical precursors in high vacuum conditions, either thermally or by beams of energetic particles (photons, ions, electrons).

### Combinatorial

3D-Oxides combinatorial facility allows fast optimisation of complex material properties by growing different chemical compositions and structures at sub-micron scale. This speeds up R&D and consolidates production processes.

### Additive growth technique

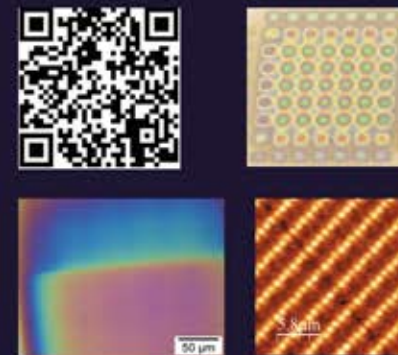
Oxide thin films are often difficult to pattern in a second step process (etching). Additive growth processes (direct 3D-printing) enable more complex device architectures.

## Products & Services

### Products

Coated substrates with a whole range of oxide thin films (homogenous or with gradient) up to 3 elements. R&D solutions for special materials.

Affordable anti-counterfeiting tags with simultaneous overt, covert and ultra-covert features.



### Services

We provide R&D services to develop multi-element and multi-functional oxide thin films.

We deliver optimized growth processes and thin films with customized properties.