ZSW PHOTOVOLTAICS

MATERIALS RESEARCH

Thin-film preparation services

PREPARATION OF THIN LAYERS

The versatility, tunability, and enhanced properties of and with thin films make them a valuable technology with a wide range of applications. Contact us to discuss how our thin film preparations can be applied to your process!


Leybold
UNIVEX 450G
E-line
www.glovebox-systemtechnik.de

EXPERTISE

With its decades of experience, the Materials Research department at ZSW is an **expert for thin-film technologies:**

Process development
Development of processes and customized coatings.

Layer formation
Deep knowledge of the physics and chemistry of layer formation and growth.

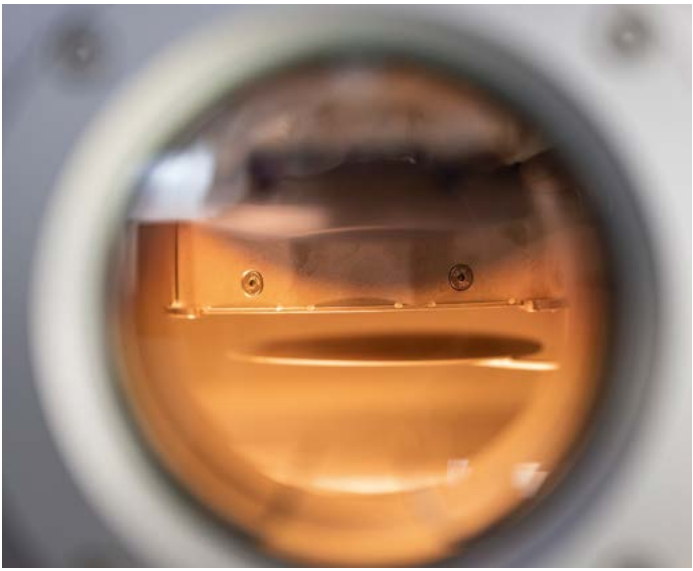
Process parameters
Understanding of the interplay of process parameters and layer properties in order to obtain the desired properties.

Technology transfer
Professional handling of industrial orders and technologytransfer to meet industrial challenges.

WE OFFER

- Coatings and research and development activities
- Laboratory-scale and semi-industrial inline coatings
- Various coating processes
- Processes on various substrates (rigid, flexible)
- Coatings from nm to µm thickness, on areas from 1×1 cm^2 to 30×30 cm^2


ZSW



PROCESSES

- Magnetron sputtering (DC, pulsed DC, RF) from rotating and planar cathodes, or RAM cathodes
- Thermal evaporation
- Electron beam evaporation
- Spin coating
- Slot-die coating (various solvents, inside or outside protective atmosphere)
- Atomic-layer deposition
- Chemical-bath deposition
- Plasma pretreatments

EXAMPLES

- Metallic layers
- Molybdenum
- Aluminium
- Titanium
- Silver
- Barriers or protective layers
- Al_2O_3
- SiO_2
- $Ti(O,N)_x$
- Organic layers
- PEDOT:PSS
- PTAA
- PCBM
- BCP
- Anti-reflective coatings
- MgF_2
- Transparent conductive oxides (TCO), for use e.g. in solar cells
- Aluminum-doped zinc oxide (AZO)
- Hydrogen-doped indium oxide (IOH)
- Zinc-doped indium oxide (IZO)
- Zirconium-doped indium oxide (IZrO)

Contact us for more examples.

Contact us
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