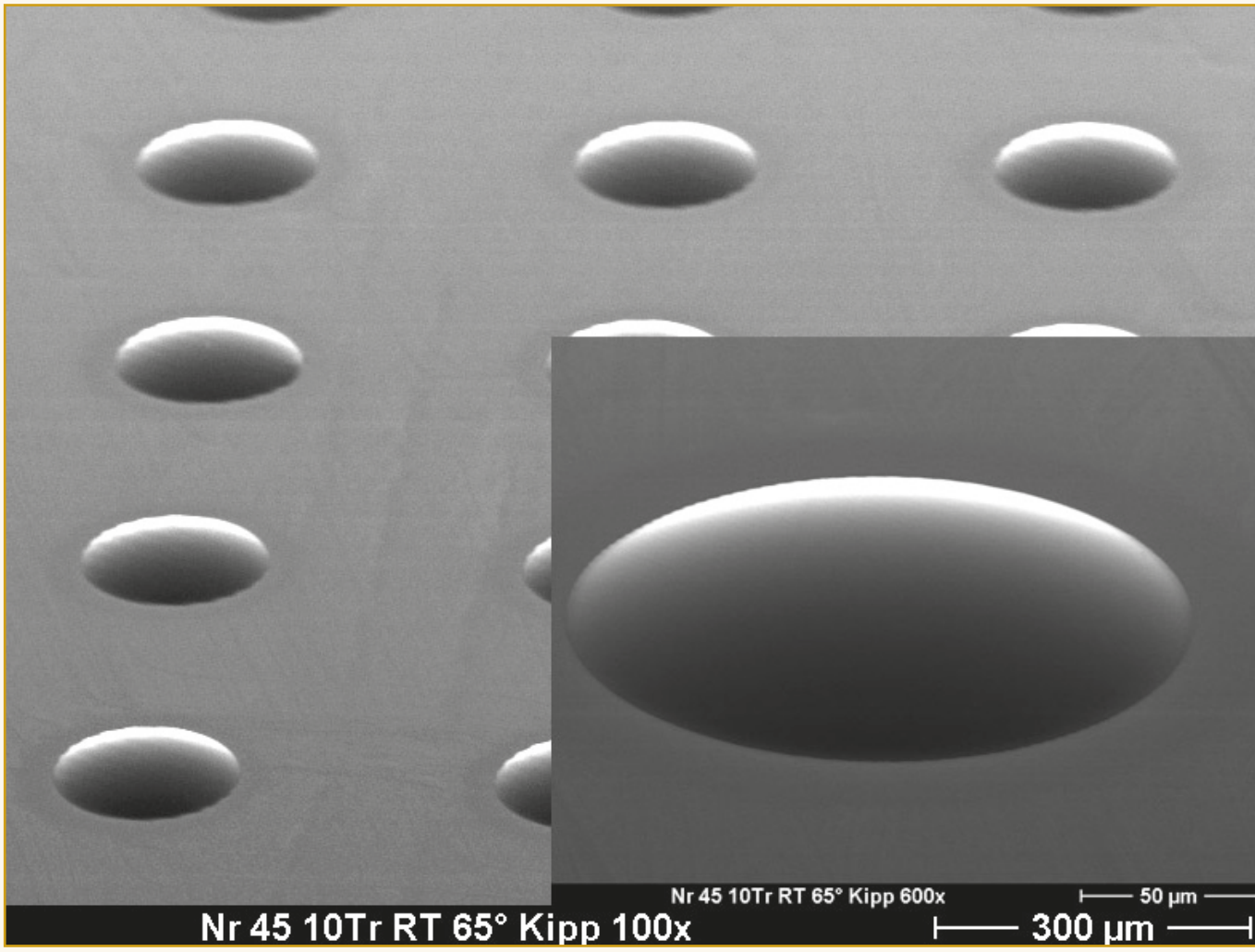
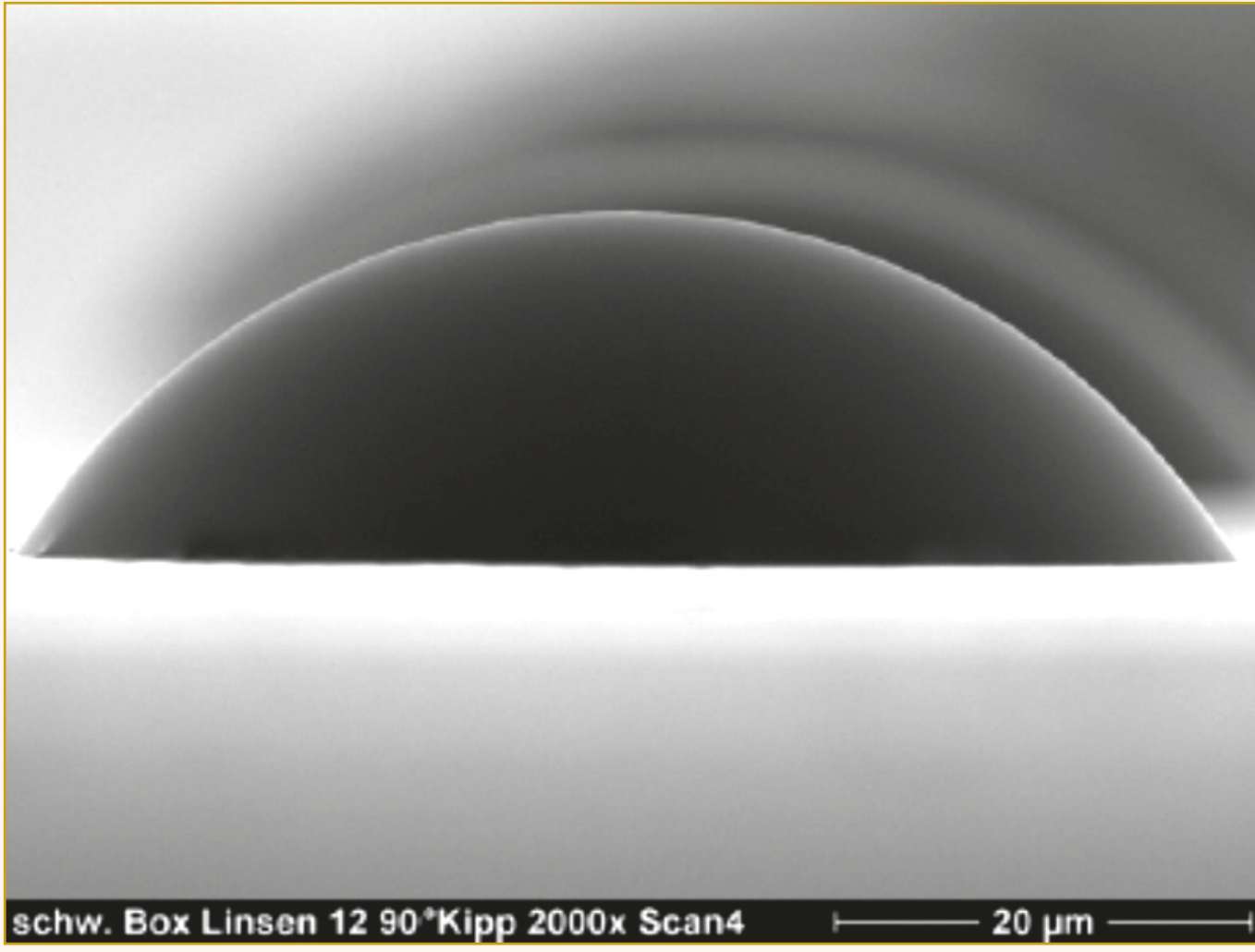


InkOrmo

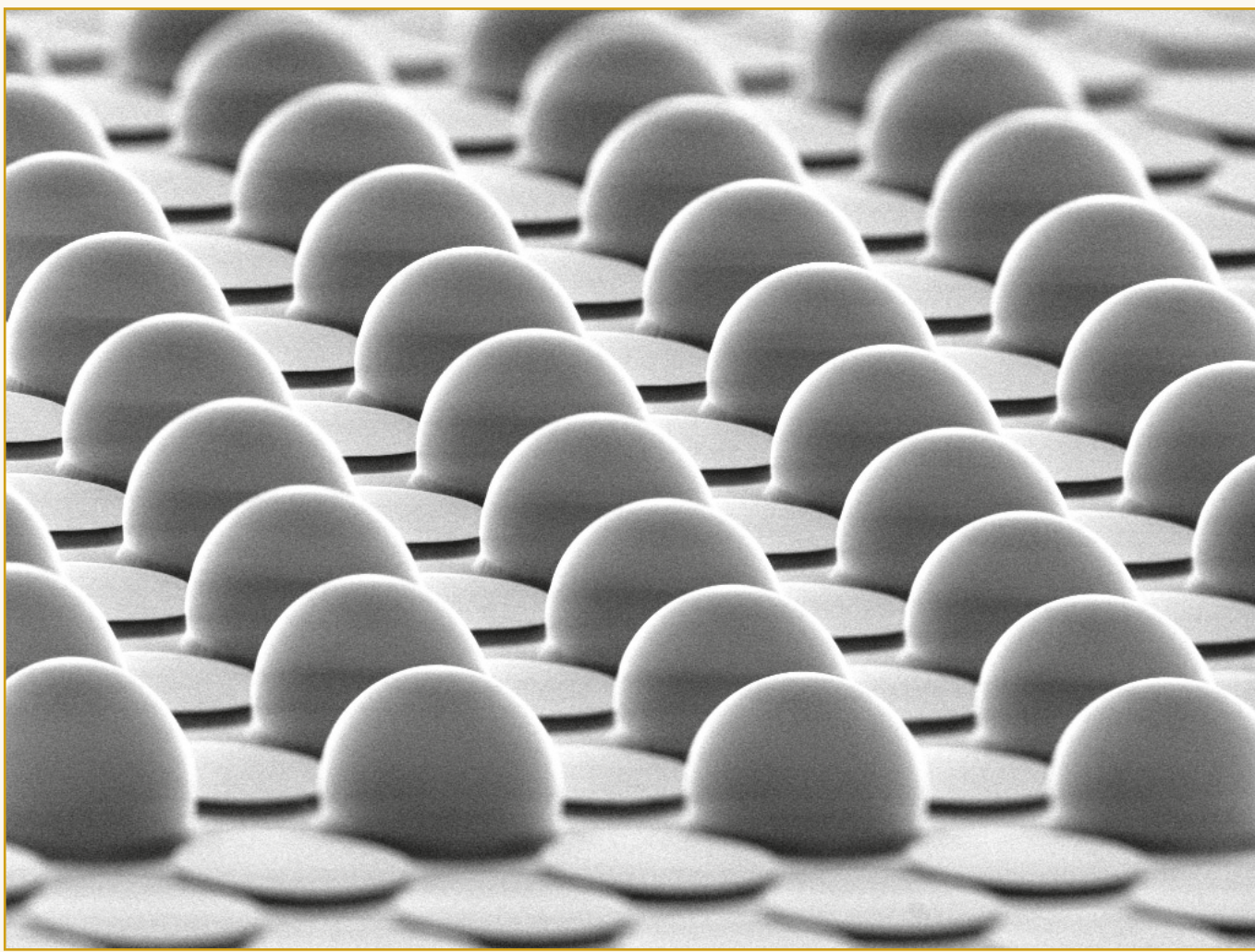
UV-curable Hybrid Polymer for Ink-Jet Printing of Optical Micro Patterns



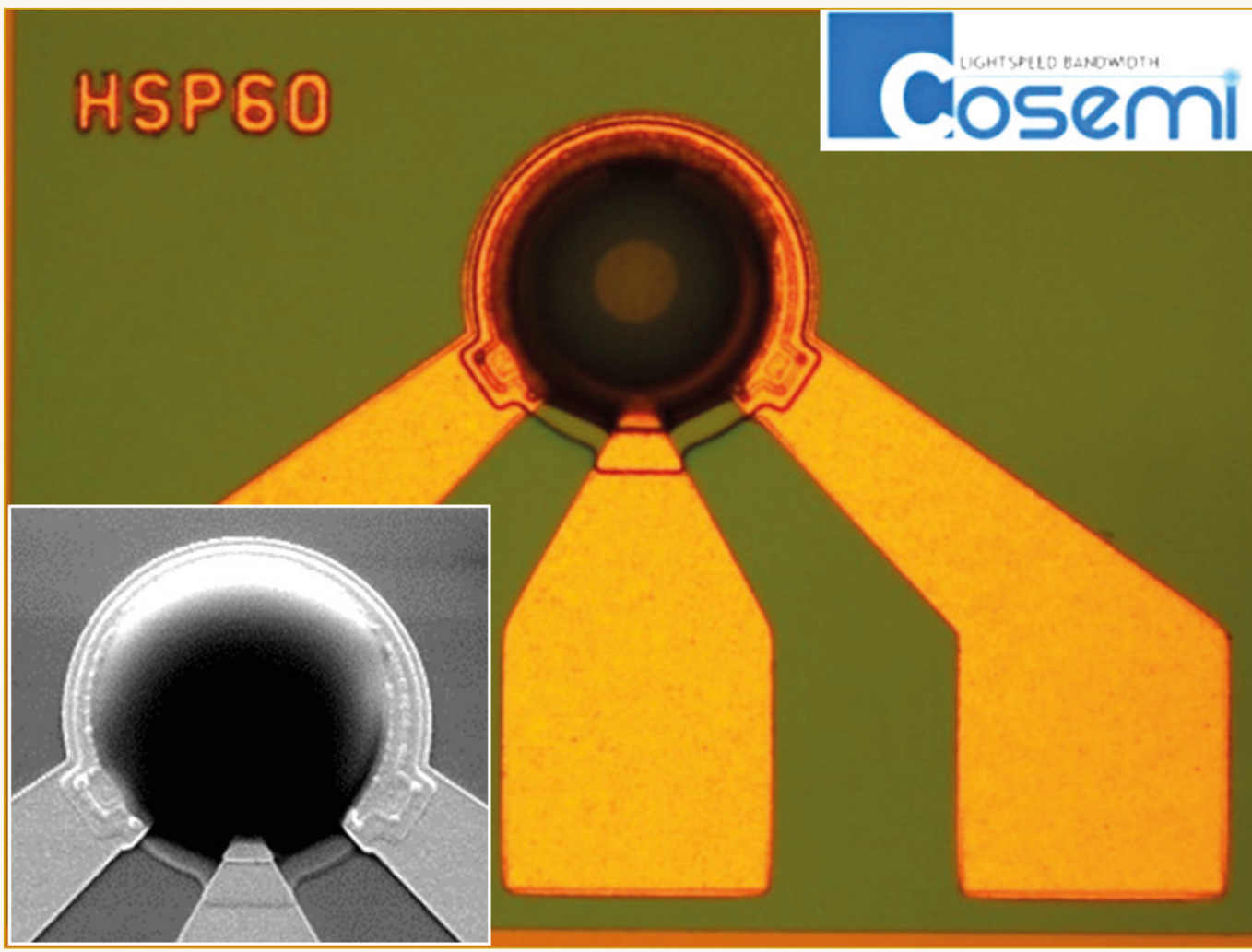
InkOrmo lenses on flat substrate with 220 µm diameter



Exemplary InkOrmo lens on surface-treated glass slide (176 µm diameter)



InkOrmo lenses on PDMS pedestals with a diameter of 100 µm (courtesy of EPFL/LMIS1, Switzerland)



Micro-lens (100 µm diameter) on pre-patterned substrate (courtesy of Cosemi Technologies Inc., USA)

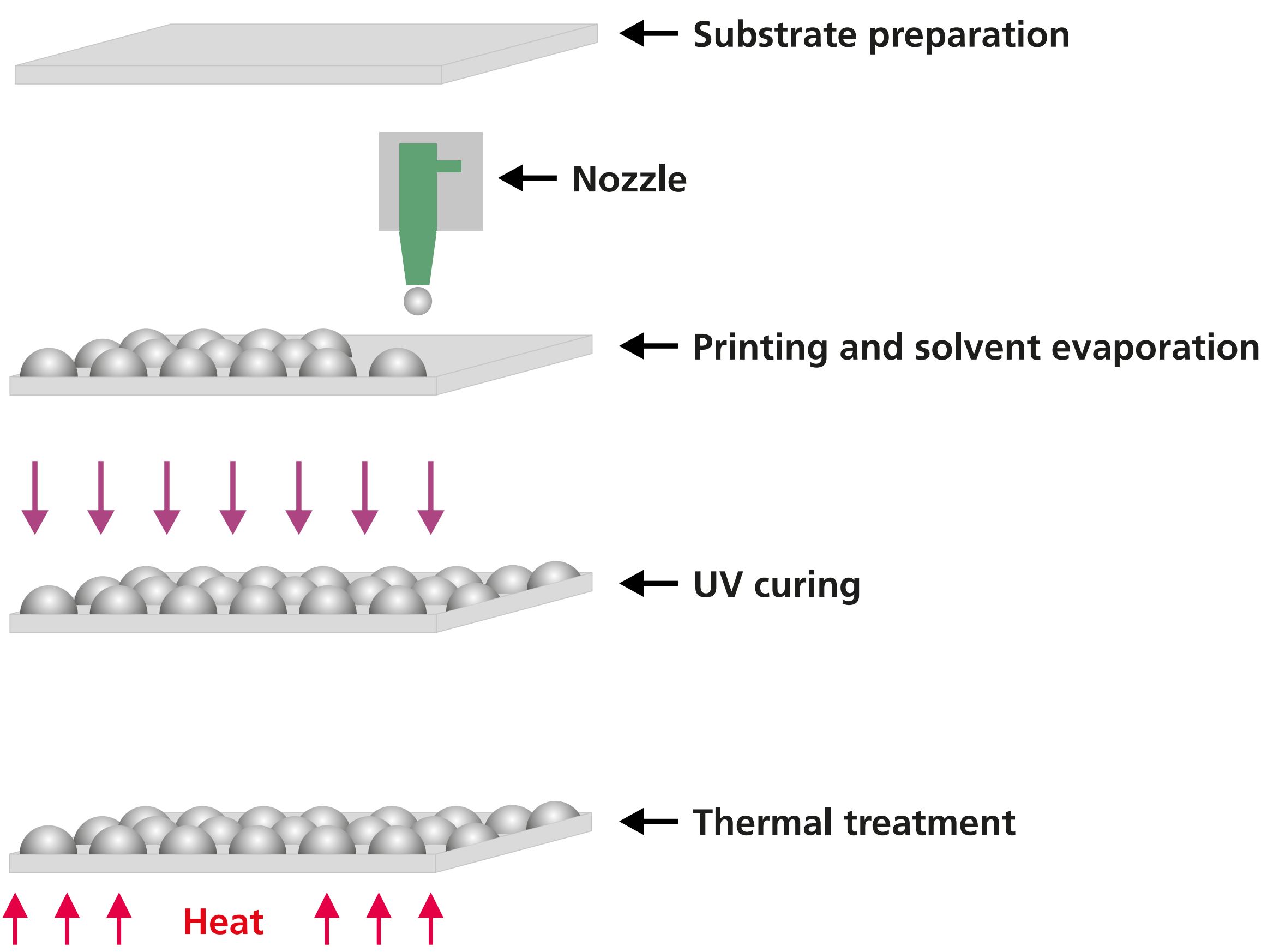
Unique features

- UV-curable ink-solution (solvent-diluted version of OrmoComp®)
- Low viscosity (solvent-ratio dependent)
- Compatible to standard ink-jet printing devices
- Excellent thermal, mechanical and chemical stability of cured patterns
- High transparency to near UV and visible light

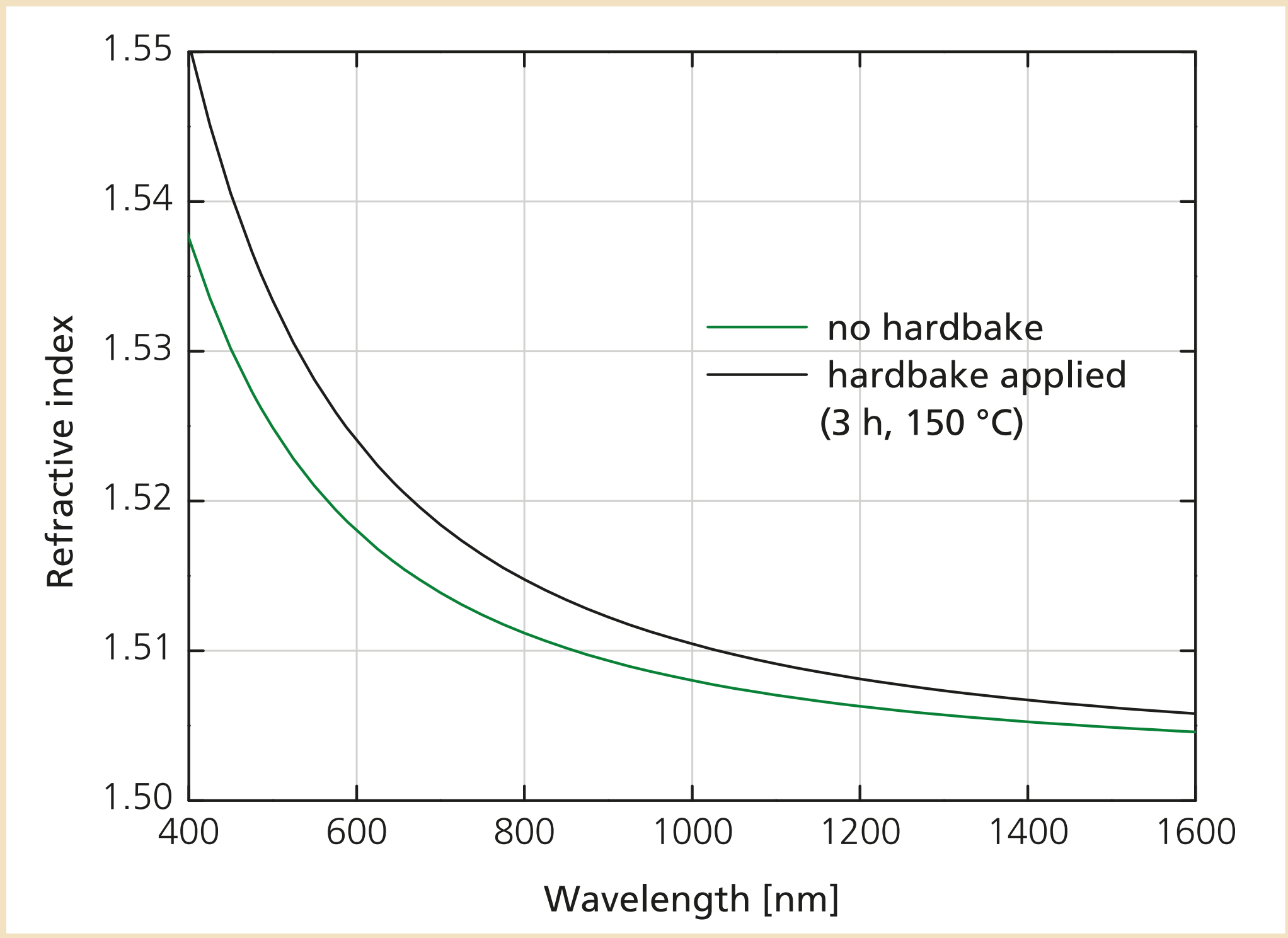
Physical data – Ink solution

Spectral sensitivity	300 - 410 nm
Available viscosities	18 mPa·s 12 mPa·s 7 mPa·s

Process flow



Optical properties - Cured material



Applications

- Single micro-lenses and micro-lens arrays
- Waveguides and microfluidic devices
- Spacers and protecting layers
- Large-area substrate processing

Technical data – Cured material

CTE (20-150 °C)	150 ppm/K
Water absorption	< 0.5 %
Hardness (by indentation)	68 ± 1 MPa

Lens profile adjustment

