

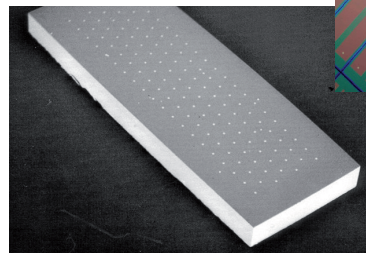
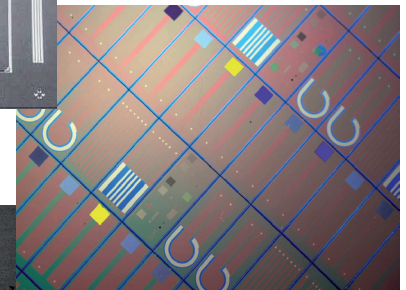
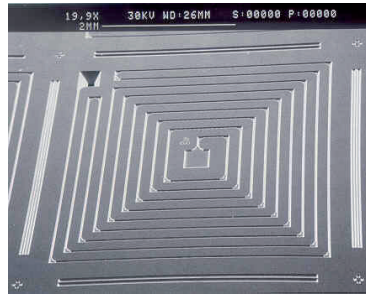
## neoDiam™ coatings in nanostructured diamond devices

*Thanks to complementary partnerships, neoDiam™ coatings can find innovative applications in high-tech MEMS and sensing devices*

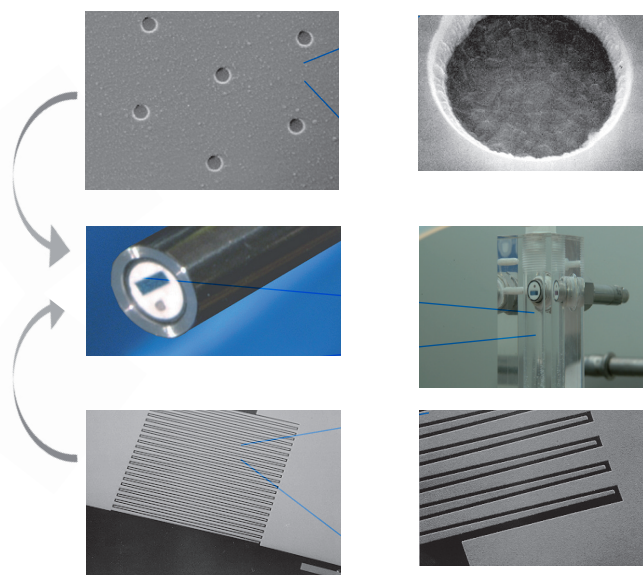
## Diamond, DOI and multilayer coatings for custom MEMS and MOEMS

Diamond or DOI coatings combined with mask less lithography for structured device manufacturing

- Maskless laser lithography for micro etching of thin film on wafers (100 to 200 mm) to manufacture NANOFORMS
- Multistep manufacturing processes (Silicon treatment, Diamond coating, Si<sub>3</sub>N<sub>4</sub>/SiO<sub>2</sub> or custom coatings, selective etching...)
- Multi-wafer batch production
- From small series (fews components) to large series (> 10-100 K chips)



Typical applications: Diamond microdisc array (MDA) or interdigitated array (IDA) of electrodes for high performance analytical applications



- Custom MDA of boron-doped diamond electrodes (microelectrode diameters in the range 3 to 10 micrometers): low flow dependence and increased signal-to-noise ratio thanks to the array arrangement
- Custom IDA of boron-doped diamond electrodes (finger distance of less than 5 micrometers): high redox cycling collection efficiency for sensitive electrochemical measurements and a wide dynamic range
- Chip size: standard 3x7mm or upon request