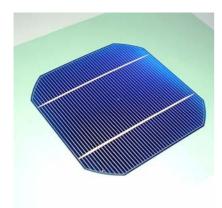
## **Soldered Samples**

## Only a few of the many applications:

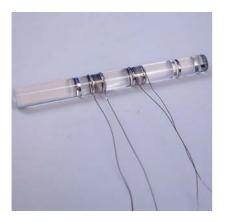


Mechanical joining of titanium rods on sapphire plate

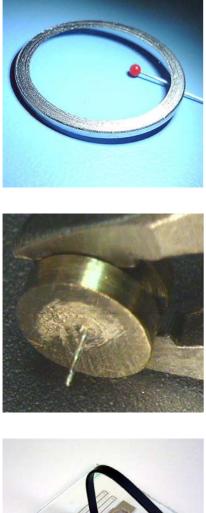
- soldering of 4 solderpads directly on sapphire
- tin-coating of the titanium rods on front face
- joining of the parts through re-melting of the solder

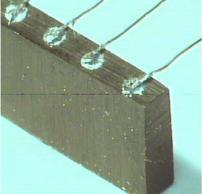


Contacting of solar cells: Si-Wafer, Thinfilm-cells, Dey sensitisised cells



Contacting of Niob coil to a Zerodur rod





Tin-coating/metalizing of optical glasses as preparation for a gas tight soldering into a stainless steel support.

Vakuum-tight soldering of glass fibre 120  $\mu m$  into bronce head with bore of 0.5 mm

Electrical coating of copper wire on a aluminum track on glass-substrate

Contacts on a ceramic carbon hybrid superconductor. Diameter of the soldering points: 0.8 mm



Applying of the metallisation Ø 20mm with solder in the centre of the aluminum-oxide plate. Producing at the same time a solder terminal/pad outside the piezodisk dimension.

Joining and soldering the piezodisk onto the aluminum oxide plate by heating the parts up to the melting point of the solder alloy.

Soldering of the connecting wire.

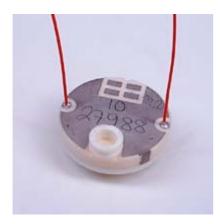


Alternative technology to brazing or welding if components may not be heated over 300°C.

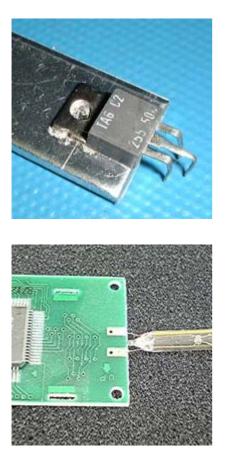
Joining / soldering of stainless steel parts.



Hermetically sealed mechanical joining of gold plated component on a sapphire tube.



Fixing of electrical connections on aluminum coating.



Soldering of power semiconductors on a cooling element (aluminum, aluminum oxide, ceramic etc) to provice best possible thermical connection.

Direct fluxfree tinning/soldering of tungsten (wolfram) wires.