

# Conductive Nanoprobe for Probers

## **NEW** Nickel, Platiniridium Probes

Micro- and nano-scale multi-probing techniques are used in semiconductor device R&D and production to probe sample surfaces, as when measuring the surface electrical characteristics for failure analysis. With the increasing intricacy of device structures in recent years, higher demands are placed on probe specifications such as increased sharpness and control of surface oxide films. Demand for such probes is also increasing in various other fields, including nanobiology.

To meet these needs, UNISOKU has developed contact inspection nanoprobes for a variety of applications.



SEM image of Tungsten probe tip

### Small tip angles produce better tip shapes for multi-probe applications

Probe tips are shaped with a small tip angle so that probes can be placed close together at acute angles without touching one another.

### Capable of soft contact with samples\*1

Without an intervening surface oxide film, Nickel probes, PtIr-coated tungsten probes and platiniridium probes make it possible to quickly achieve conductivity on contact, minimizing damage to samples and probes.

\*1: Applies only to Nickel probes, PtIr-coated tungsten probes, and platiniridium probes and not to tungsten probes.

<p><b>NEW</b></p> <p><b>Ni Probes</b> Type:P-100Ni(P) Low contact resistance</p>	<p><b>PtIr coating tungsten probes</b> Type:P-100W/PtIr Low contact resistance</p>	<p><b>NEW</b></p> <p><b>Platiniridium probes</b> Type:P-100PtIr(P) Low contact resistance</p>	<p><b>Tungsten probes</b> Type:P-100WP</p>
<p>Shape : cone shape Wire rod : polycrystalline Ni 0.25mm diameter Curavant radius of a tip : &lt;50nm</p>	<p>Shape : cone shape Wire rod : polycrystalline tungsten 0.25mm diameter Curavant radius of a tip : &lt;100nm PtIr(80:20)coating thickness:3nm</p>	<p>Shape : cone shape Wire rod : polycrystalline Platiniridium 0.5mm diameter Grind process : Electro-polishing after mechanical grind Curavant radius of a tip : &lt;50nm</p>	<p>Shape : cone shape Wire rod : polycrystalline tungsten 0.25mm diameter Curavant radius of a tip : &lt;100nm</p>
<p>SEM image</p> <p>*SEM image of P-100Ni(S)</p>	<p>SEM image</p>	<p>SEM image</p>	<p>SEM image</p>