Low impedance. Built to last.

Advanced materials for neural recording and stimulation.

Low impedance | **Recording + stimulation** | **Long-term reliability**

NeuroNexus combines advanced electrode materials and robust insulation to support demanding neural research, from low-impedance recording to repeated use and long-term implantation.



SIROF
Planar, granular surface

Z-Coat
Raised, high-surface-area coating

Conceptual illustration • Not to scale

SIROF

~100 kΩ
TYPICAL SITE IMPEDANCE

Low impedance. No additional coating required.

Sputtered iridium oxide film provides a planar, granular surface with increased area within a compact recording site.

High charge injection capacity for stimulation.

Z-Coat™

~50 kΩ
TYPICAL SITE IMPEDANCE

Even lower impedance. Engineered for repeated use.

Our proprietary PEDOT-based coating combines increased surface area with mechanical durability, including repeated tissue insertions.

High charge injection capacity for stimulation.

More than low impedance: Materials that sustain performance.

SIROF and Z-Coat support both recording and electrical stimulation. Our amorphous silicon carbide (SiC) dielectric layer adds robust electrical insulation designed for long-term recording reliability.

Find the right electrode technology for your next study.

Explore electrode options | sales@neuronexus.com
+1 734 913 8858

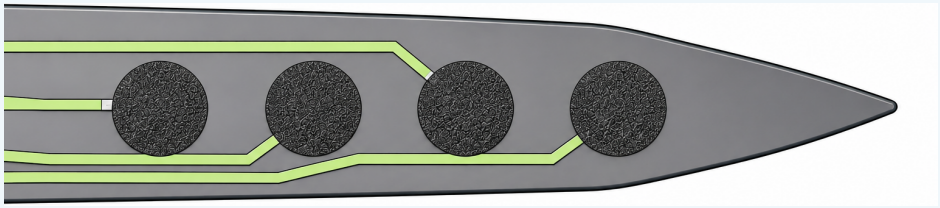
Engineered at the interface.

Electrode surfaces and insulation, working together.

Materials on the probe

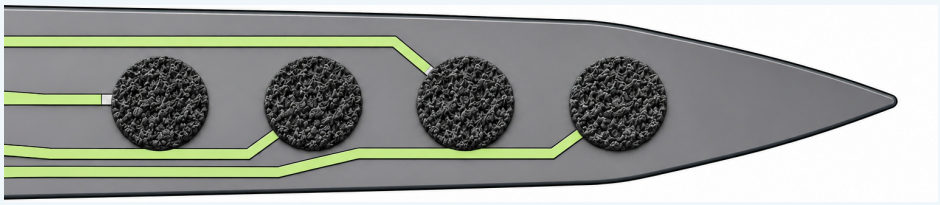
SIROF

Planar, finely granular surface



Z-Coat™

Raised, porous coating



Conceptual illustrations. Surface relief is exaggerated; not to scale.

Low-impedance recording

SIROF and Z-Coat offer low-impedance interfaces for neural recording. Their surface structures increase the area available at each site while retaining a compact geometric footprint.

High-capacity stimulation

Both SIROF and Z-Coat are excellent choices for electrical stimulation as well as recording. Their high charge injection capacity supports charge exchange at the electrode interface during stimulation.

Durability from the electrode surface to the insulation.

Z-Coat: Our proprietary formulation is engineered for mechanical durability through repeated tissue insertions. **SiC:** Our amorphous silicon carbide dielectric layer provides robust electrical insulation designed to withstand the demanding environment of the body and support long-term recording reliability.

More than 22 years of neural probe innovation.

Find the right electrode technology for your next study.

Explore electrode options | sales@neuronexus.com
+1 734 913 8858