

Unlocking the brain with graphene-based neurotechnology

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Abstract

INBRAIN Neuroelectronics is pioneering the use of graphene-based neural interfaces to transform the treatment of neurological disorders. Our vision is to decode brain signals with unprecedented precision and modulate dysfunctional circuits through adaptive, intelligent neurotechnology. At the core of this vision is our proprietary platform that leverages the unique properties of graphene to create neural interfaces capable of both acute and chronic implantation. Unlike conventional metallic electrodes, INBRAIN's graphene interfaces enable scalable, minimally invasive architectures that offer superior performance for both recording and stimulation.

We are currently developing a portfolio of therapies targeting conditions such as Parkinson's disease and epilepsy, and advancing towards closed-loop, AI-powered neuromodulation systems. In parallel, our brain mapping solutions are enabling safer, more precise surgical interventions. This talk will highlight our translational journey and demonstrate how graphene is moving from the lab to the clinic, opening a new era of intelligent neuroelectronics.

