sensors

MDPI

Supplementary

Highly Activated Neuronal Firings Monitored by Implantable Microelectrode Array in the Paraventricular Thalamus of Insomnia Rats

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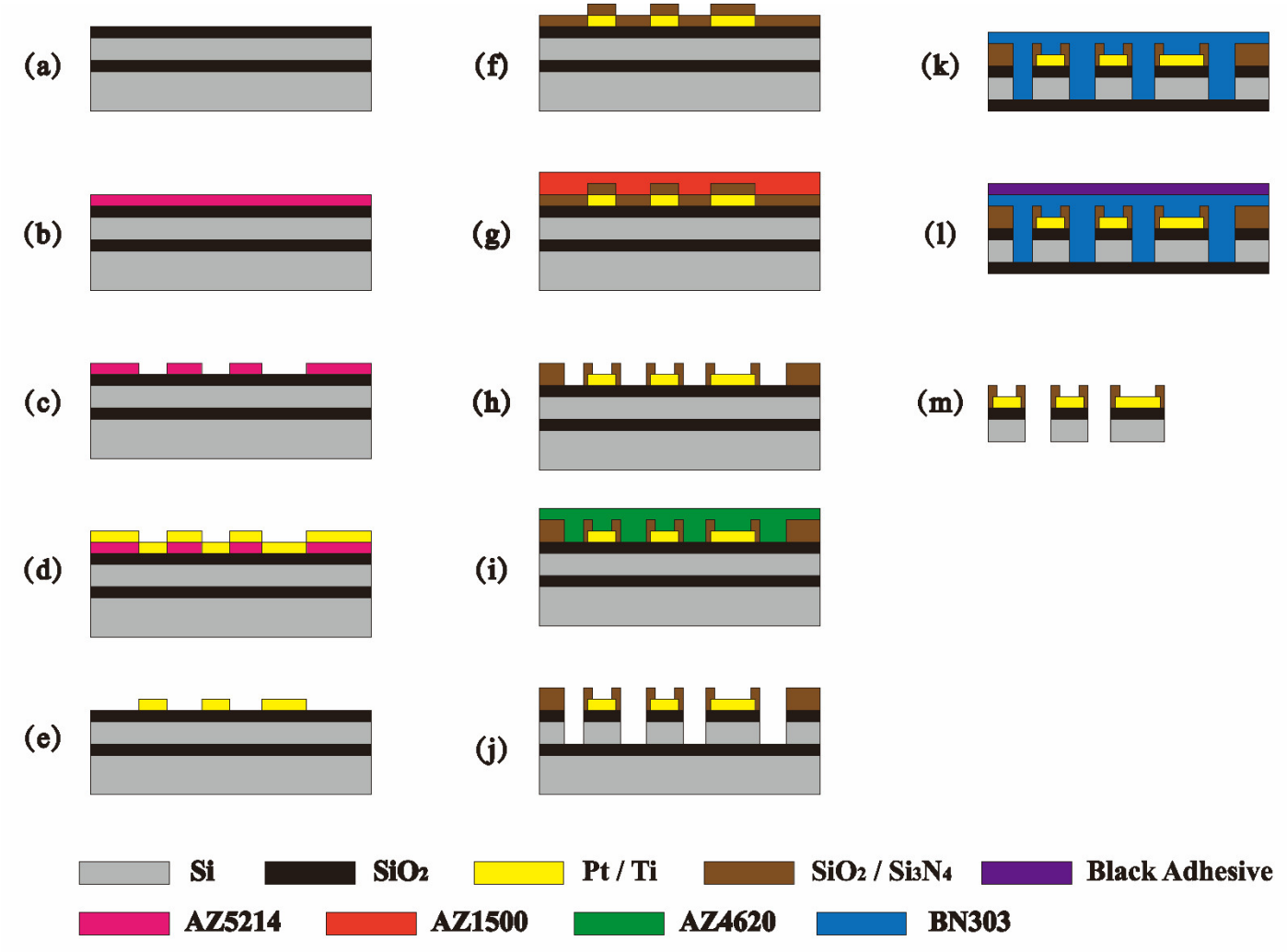

Figure S1. The process of MEA fabrication. (**a**) Deposition of SiO_2 by thermal oxidation. (**b**) Spin coating of photoresist (AZ5214). (**c**) Photoetching. (**d**) Sputtering metal layer. (Ti/Pt). (**e**) Pattern metal layer by lift-off. (**f**) Deposition of SiO_2/Si_3N_4 by PECVD. (**g**) Spin coating of photoresist (AZ1500). (**h**) Photoetching. (**i**) Spin coating of photoresist (AZ4620). (**j**) Photoetching and DRIE. (**k**) Spin coating of photoresist (BN303). (**l**) Coating of black adhesive. (**m**) Releasing electrodes by wet etching.

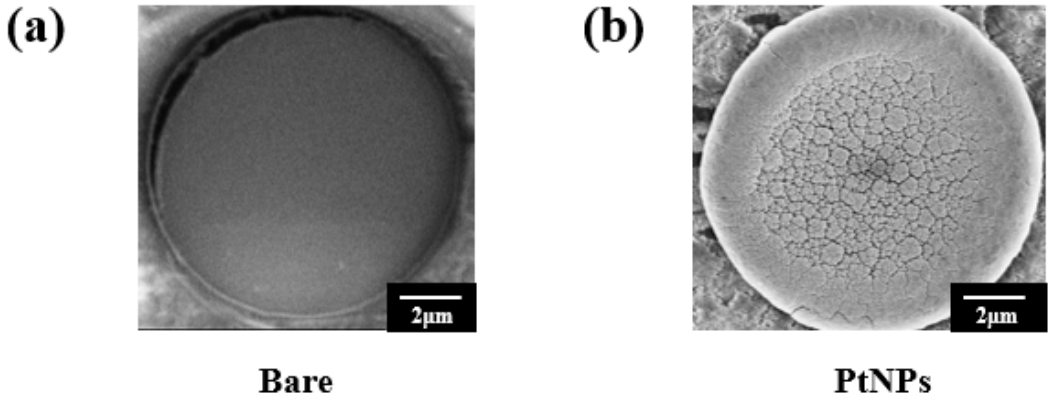

Figure S2. The scanning electron image of (**a**) bare and (**b**) PtNPs-modified MEA sites.

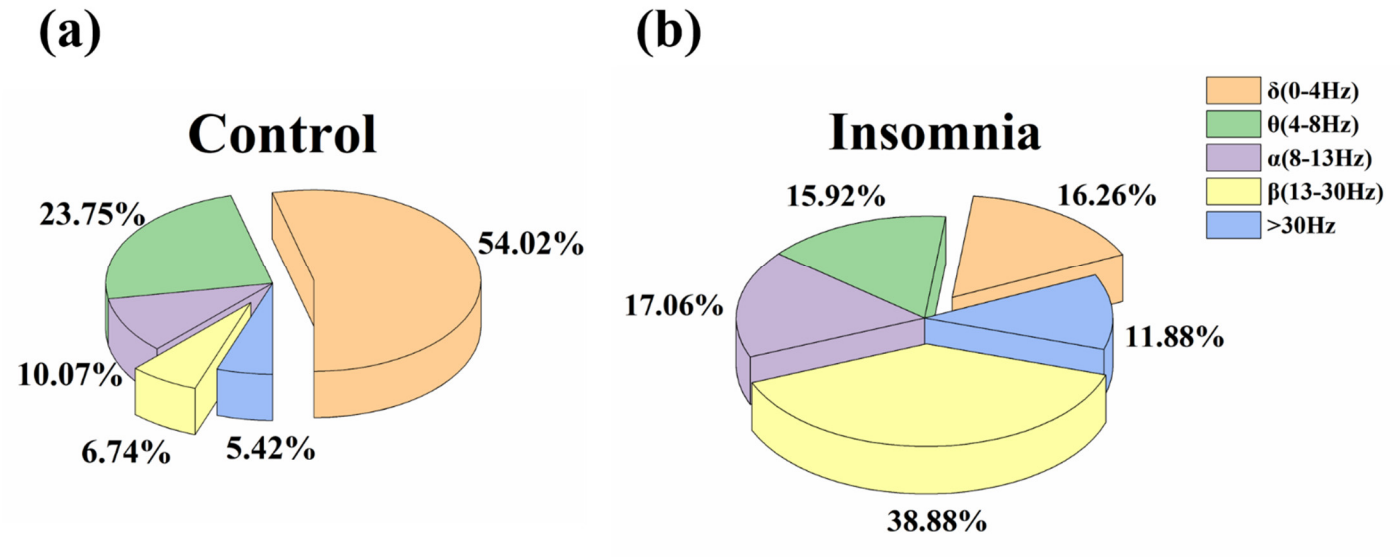

Figure S3. The proportion of different frequency bands in (**a**) control and (**b**) insomnia rats.