Abstract

A previously described, forward solution for the problem of determining surface potentials on a long circular limb arising from electrical nerve activity within the limb is used to solve the inverse problem, namely, the recovery of source nerve potentials from limb surface potentials. The inverse problem is solved by means of a two-dimensional (2-D) digital filter which has the advantages of simplicity, speed, and ease of implementation compared to any other solution method.

Citation

"Potential Field From an Active Nerve in an Inhomogeneous Anisotropic Volume Conductor: The Inverse Problem." With O. B. Wilson, J. W. Clark, N. Ganapathy and S. Cabrera. IEEE Transactions on Biomedical Engineering, December, 1985.