Abstract Submitted
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Nanoscale open-ended coaxial line proximity sensor array for spatio-temporal impedance imaging[1] JEFFREY R. NAUGHTON, BINOD RIZAL, MICHAEL J. BURNS, GREGORY MCMAHON, STEPHEN SHEPARD, MICHAEL J. NAUGHTON, Boston College — We describe the development of a dielectric impedance measurement array comprised of open-ended nanoscale coaxial proximity sensors. The device offers the capability of on-chip dielectric impedance tomography for imaging *e.g.* biological cells with ∼micron pixel density. Computer simulations of the response of individual pixels and of discrete arrays to changes in dielectric properties of proximate media are presented. Experiments with biological cells on 1st-generation arrays will be discussed.

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