

MAR11-2010-005665

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Sorting Category: 16.10 (E)

Nanoscale open-ended coaxial line proximity sensor array for spatio-temporal impedance imaging¹ 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 \sim 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.

¹naughton@bc.edu

- Prefer Oral Session
 Prefer Poster Session

Michael Naughton
naughton@bc.edu
Boston College

Date submitted: 19 Nov 2010

Electronic form version 1.4