

## Modified open-ended dielectric probe in distinction between cancer and healthy breast tissues.

---

### Autorzy

Marek Rudowski  
Kazimierz Orzechowski  
Marek Rząca

### Rok wydania

2010

### Czasopismo

Journal of Non-Crystalline  
Solids

### Numer woluminu

356

### Strony

730-732

### DOI

10.1016/j.jnoncrysol.2009.06.054

### Kolekcja

Naukowa

### Język

Angielski

### Typ publikacji

Artykuł

### Streszczenie

A new technique for intra-operative breast cancer tissue recognition is proposed. Using the open-ended probe covered by Mylar® film we investigated dielectric properties of breast tissue samples coming from 131 patients. The high efficiency in differentiation between normal and anomalous tissue and the ability to fulfil aseptic conditions is promising in cancer diagnostics. Presence of blood and electrolytes does not disturb measurements. A prototype of intra-operative cancer probe was designed and tested.

### Słowa kluczowe

biological systems, devices, Sensors, Dielectric properties, relaxation, Electric modulus, Microwave

### Adres publiczny

<https://doi.org/10.1016/j.jnoncrysol.2009.06.054>

### Strona internetowa wydawcy

<http://www.elsevier.com>