

Microstructural analysis of $\text{TiO}_2\text{-CoFe}_2\text{O}_4$ film

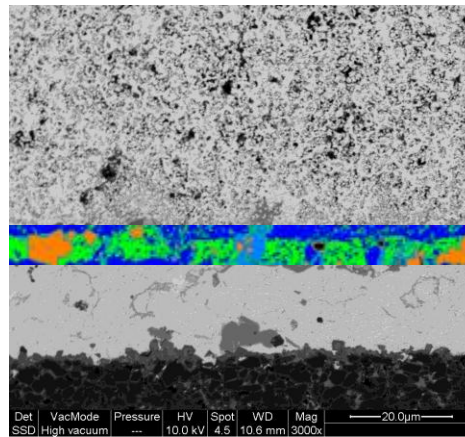
Pietro Galizia*, Davide Gardini, Carlo Baldisserri, Carmen Galassi
CNR - ISTECS (Faenza, Italy)

* Presenting author

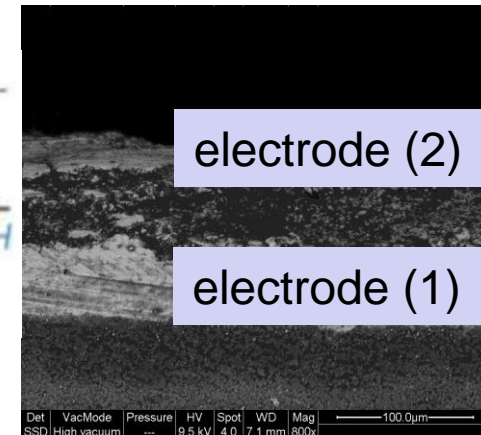
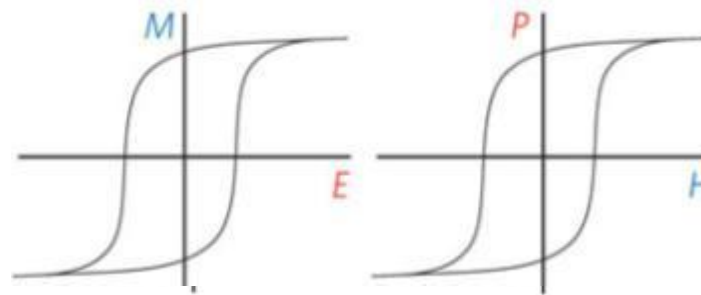


EPD to produce nanostructured ME composite bilayers films

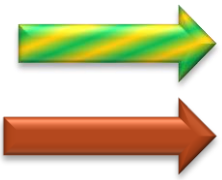
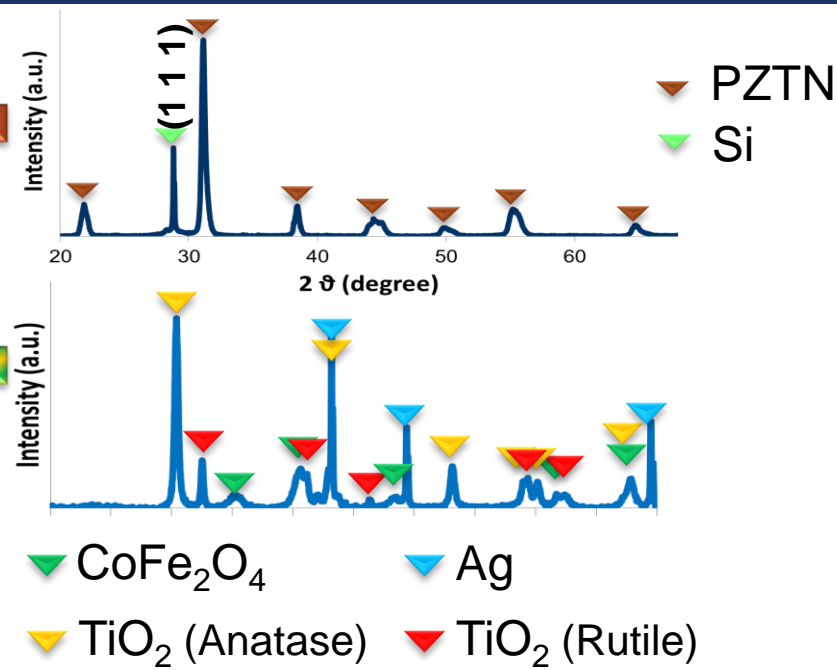
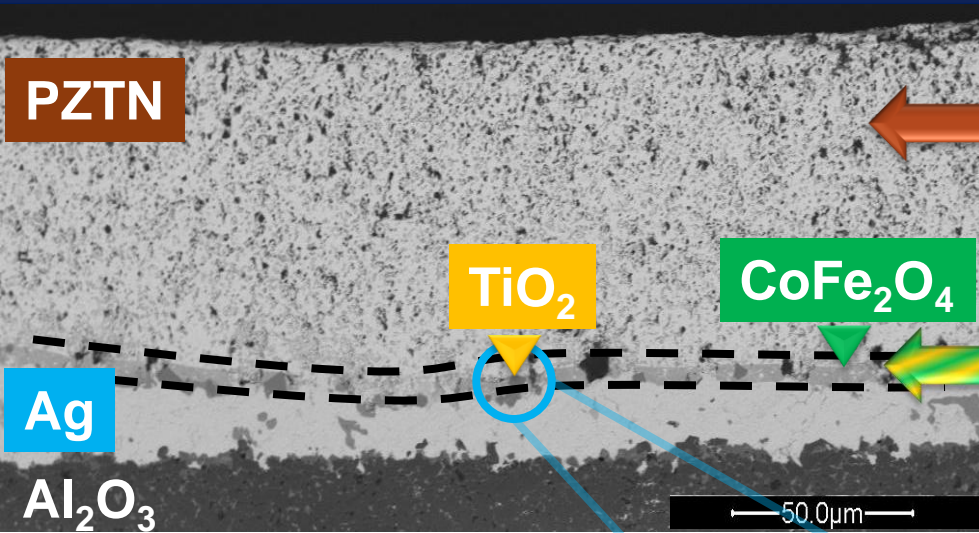
➤ Chemical reactions



➤ ME coupling effect



Results



CFO/TO: 98% relative density; 25vol% TiO₂; 75vol% CFO

PZTN: 95% relative density

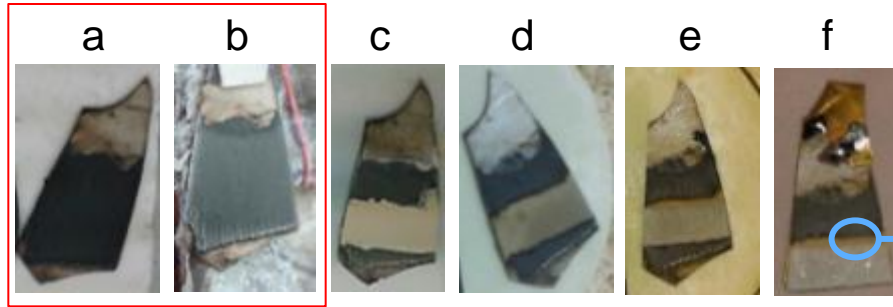
Piezoelectric properties!



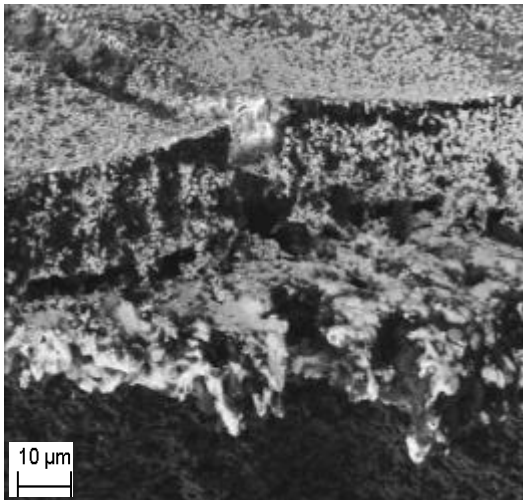
Contribution

- a) Co-deposition **CF₀/TO**
- b) Drying and sintering
- c) Deposition **PZTN**
- d) Drying and sintering
- e) Metallization
- f) Poling

Step:

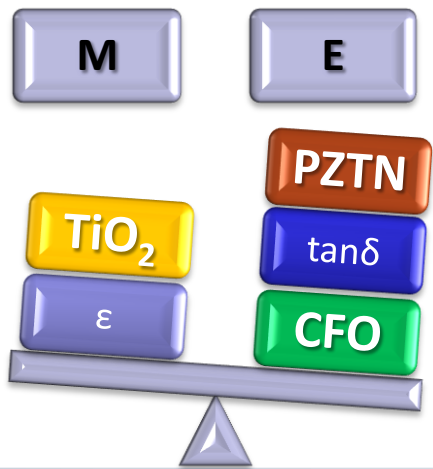
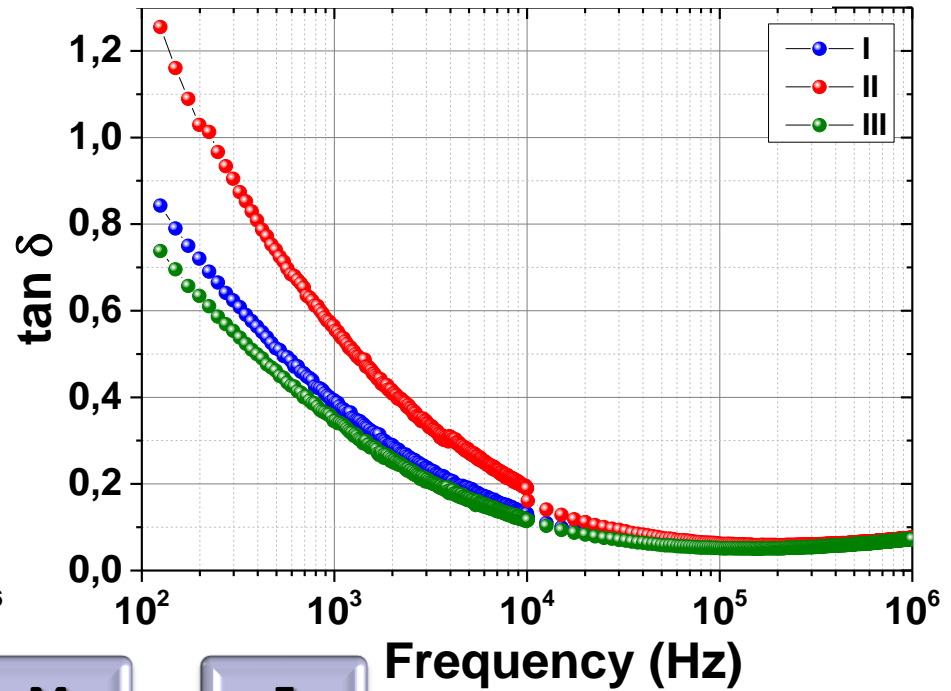
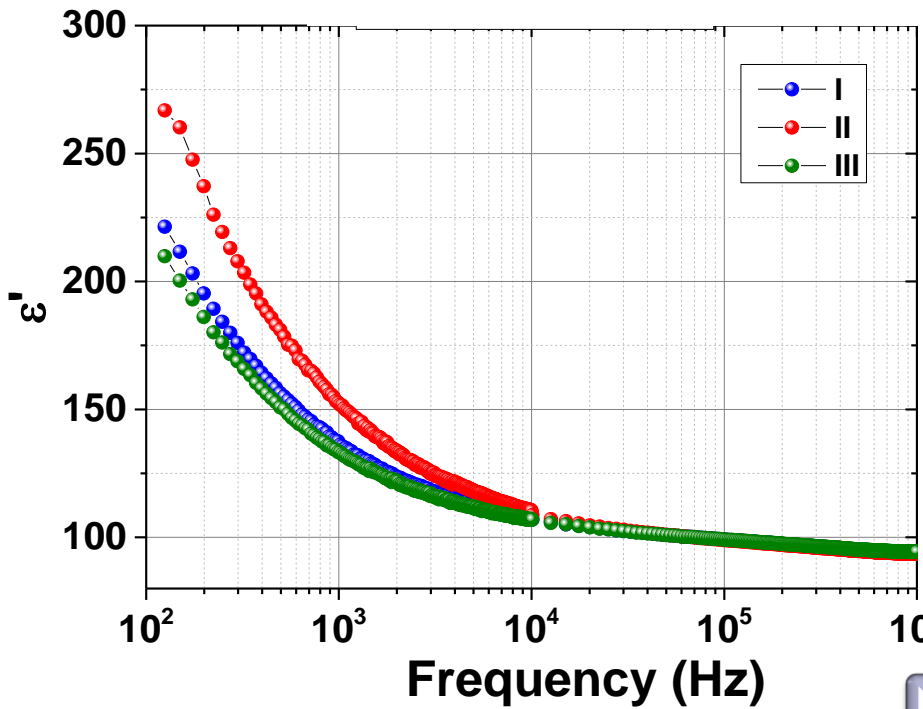


**EPD film on Ag-coated alumina
Sintered at 800°C x 1h**



**Ag-coated alumina
was used to produce
CoFe₂O₄ layer
embedded in silver**

Impact



Thank you for your kind attention

