

FIS Capacifor

INVENTORS:

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INTRODUCTION

Electrolyte-Insulator-Semiconductor (EIS) capacitor is used to evaluate pH sensitivity of tin oxide thin films. Silicon dioxide (SiO₂) was first used as pH-sensitive dielectric for ISFET. Currently, there have several types of materials that suitable to fabricate the pH sensor diode such as Al₂O₃, Si₃N₄ and Ta₂O₅. These materials have higher pH response.

PRODUCT FABRICATION & CHARACTERIZATION

- Preparation of silicon substrate
- Oxidation
- Masking
- Photolithography
- Metallization
- CV Measurement

PRODUCT NOVELTIES

- Fabrication process is relatively simple and readily available
- · The electrolyte can be acid or alkaline
- Small size
- Fabricated on silicon hence miniaturization & integration with integrated circuit are possible



