



US007192828B2

(12) **United States Patent**
Basceri et al.

(10) **Patent No.:** **US 7,192,828 B2**
(45) **Date of Patent:** **Mar. 20, 2007**

(54) **CAPACITOR WITH HIGH DIELECTRIC
CONSTANT MATERIALS AND METHOD OF
MAKING**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/819,420**

(22) Filed: **Apr. 7, 2004**

(65) **Prior Publication Data**

US 2004/0191983 A1 Sep. 30, 2004

Related U.S. Application Data

(63) Continuation of application No. 09/903,160, filed on
Jul. 11, 2001, now Pat. No. 6,727,140.

(51) **Int. Cl.**
H01L 21/8242 (2006.01)

(52) **U.S. Cl.** **438/240**; 438/770; 257/E21.01

(58) **Field of Classification Search** 257/E21.01,
257/E21.009; 438/770, 396, 239, 240
See application file for complete search history.

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(57) **ABSTRACT**

A stabilized capacitor using non-oxide electrodes and high dielectric constant oxide dielectric materials and methods of making such capacitors and their incorporation into DRAM cells is provided. A preferred method includes providing a non-oxide electrode, oxidizing an upper surface of the non-oxide electrode, depositing a high dielectric constant oxide dielectric material on the oxidized surface of the non-oxide electrode, and depositing an upper layer electrode on the high dielectric constant oxide dielectric material.

11 Claims, 5 Drawing Sheets

