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Lucovsky

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(54) **BINARY NON-CRYSTALLINE OXIDE ANALOGS OF SILICON DIOXIDE FOR USE IN GATE DIELECTRICS**

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(58) **Field of Search** 257/410, 411, 257/701, 702

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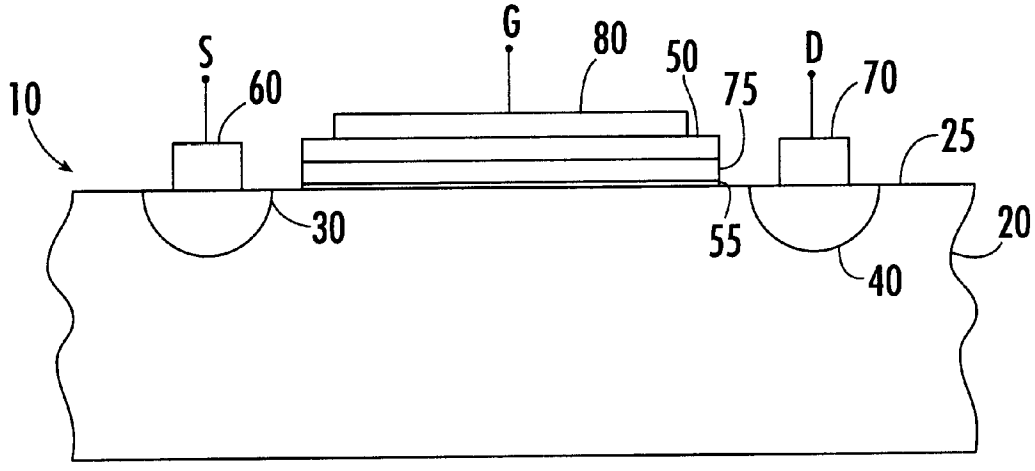
(57) **ABSTRACT**

The invention generally relates to oxides that may be used in conjunction with integrated circuit devices. The oxides are non-crystalline. The oxides are represented by the formula: ABO_4, wherein A is an element selected form Group IIIA of the periodic table; and B is an element selected form Group VB of the periodic table. The oxides may be employed in field effect transistors as tin gate insulating layers having high dielectric constants.

26 Claims, 2 Drawing Sheets