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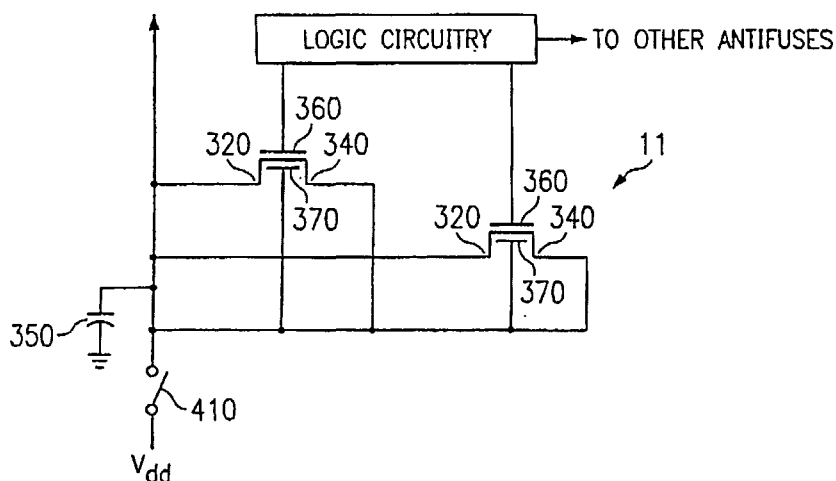
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- (71) Applicant: **INFINEON TECHNOLOGIES AG**
[DE/DE]; St. Martin-Strasse 53, 81669 München (DE).
- (72) Inventor: **KOTHANDARAMAN, Chandrasekharan**;
48 Walnut Avenue, Bogota, NJ 07603 (US).

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(54) Title: ELECTRICAL ANTIFUSE WITH EXTERNAL CAPACITANCE



(57) Abstract: The present invention provides for the programming on an antifuse having a dielectric disposed between a plurality of conductive elements with one of the conductive elements connected to a capacitor. The antifuse is programmed to an "on" state by precharging the capacitor and then applying a programming voltage to another one of the conductive elements. This results in the breakdown of the interposed dielectric to form a conductive link between the conductive elements. Immediately, following the formation of a conductive link, the electrical energy stored in the capacitor is released through the conductive link across the dielectric. Further, the capacitor can be common to a plurality of programmable antifuses and the application of the programming voltage serves to select one of the plurality of antifuses to be "blown". This arrangement can be realized in a FET and the device can be easily integrated in the CMOS process commonly used for the manufacture memory arrays and logic circuitry.



WO 03/075346 A2