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(71) Applicant: **MOTOROLA, INC., A CORPORATION OF THE STATE OF DELAWARE** [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60196 (US).

(72) Inventors: **ROBERTS, Douglas, R.**; 7608 Tisdale Drive, Austin, TX 78757 (US). **LUCKOWSKI, Eric,**; 3016 Flower Hill Drive, Round Rock, TX 78664 (US).

(74) Agents: **KOCH, William, E.**; Corporate Law Department, Intellectual Property Section, 7700 West Parmer Lane, MD: TX32/PL02, Austin, TX 78729 et al. (US).

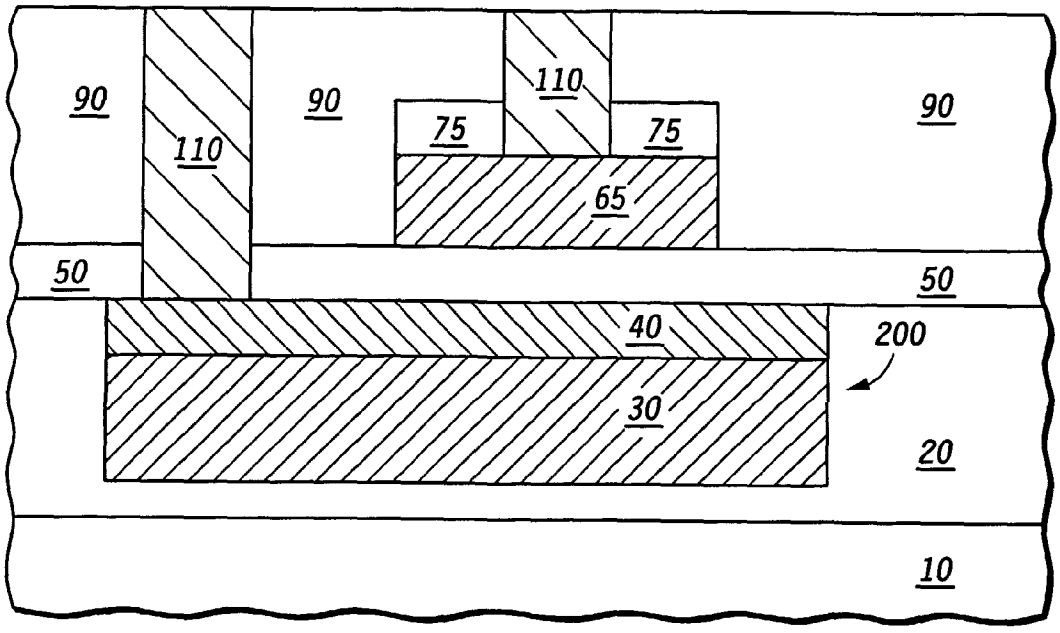
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(54) Title: PROCESS FOR MAKING A MIM CAPACITOR



(57) Abstract: A process for forming a metal-insulator-metal (MIM) capacitor structure includes forming a recess in the dielectric layer (20) of a semiconductor substrate (10). A first capacitor electrode (30, 40) is formed in the recess having a copper first metal layer (30) with a conductive oxidation barrier (40) formed over the first metal layer (30). The first capacitor electrode (30, 40) is planarized relative to the dielectric layer (20). An insulator (50) is formed over the first capacitor electrode (30, 40) and a second capacitor electrode (65) is formed over the insulator (50). Forming the first capacitor electrode (30, 40) in the recess maintains the alignment of a periphery of the copper first metal layer (30) with the conductive oxidation barrier (40).

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