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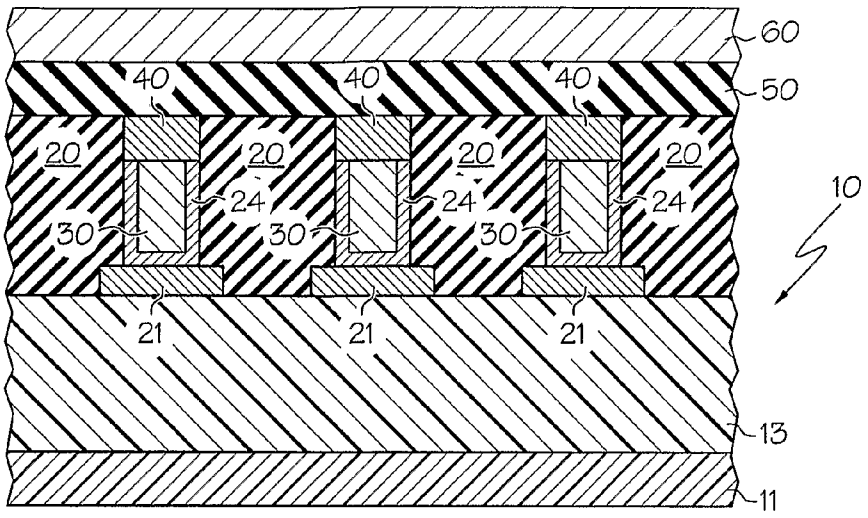
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(54) Title: ELECTROLESS PLATING OF METAL CAPS FOR CHALCOGENIDE-BASED MEMORY DEVICES



(57) Abstract: A method of forming a metal cap over a conductive interconnect in a chalcogenide-based memory device is provided and includes, forming a layer of a first conductive material (21) over a substrate (10), depositing an insulating layer (20) over the first conductive material and the substrate, forming an opening (22) in the insulating layer to expose at least a portion of the first conductive material, depositing a second conductive material (30) over the insulating layer and within the opening, removing portions of the second conductive material to form a conductive area within the opening, recessing the conductive area within the opening to a level below an upper surface of the insulating layer, forming a cap (40) of a third conductive material over the recessed conductive area within the opening, the third conductive material selected from the group consisting of cobalt, silver, gold, copper, nickel, palladium,platinum,and alloys thereof, depositing a stack of a chalcogenide based memory cell material (50) over the cap, and depositing a conductive material (60) over the chalcogenide stack.

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