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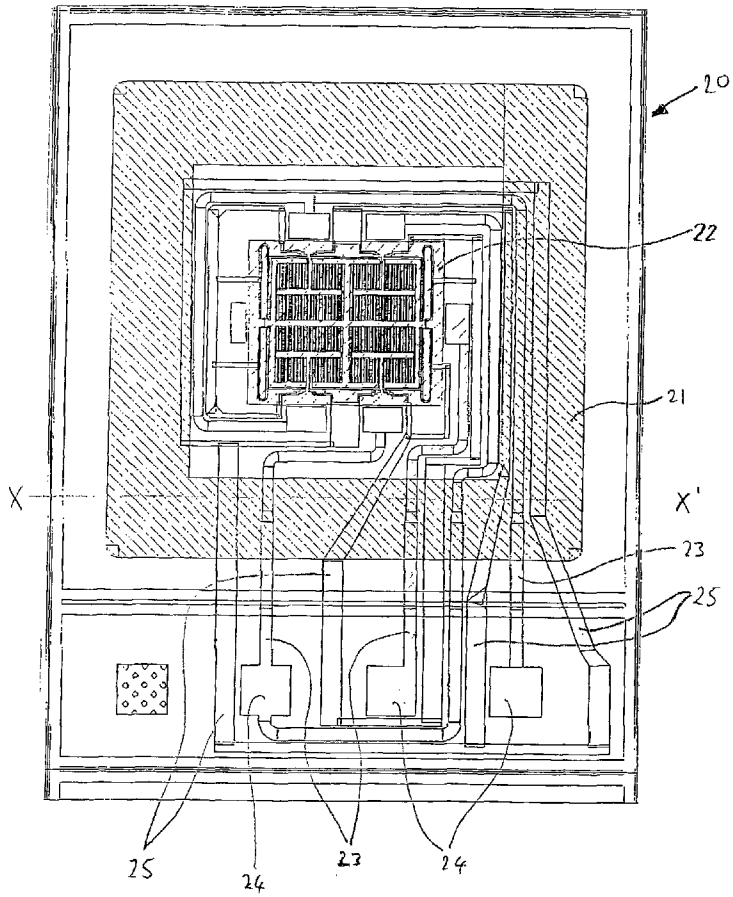
(54) Title: METHOD OF MANUFACTURING AN ACCELEROMETER



(57) Abstract: Devices fabricated on a wafer are encapsulated by forming a pattern of bond rings on a cap wafer and aligning and bonding the two wafers together, under thermo-compression, so that an operational part (22) of each device (20) is surrounded by a respective bond ring (21). The bond ring provides a hermetic seal by occupying any trenches (25) or other discontinuities, such as conductive tracks (23), in the upper surface of the device crossed by the ring. An accelerometer is manufactured by etching at least one cavity (5) into the top side of a substrate (1), bonding an intermediate layer of material (6) onto the top side of the substrate, depositing metallization (7) onto the intermediate layer and etching the metallization and intermediate layer to form a sensor structure suspended over each cavity. Conductive tracks (31, 32) of a lower metallization layer deposited on the substrate (30) cross under tracks (37, 38) deposited on the upper side of the intermediate layer (35, 36) without making electrical connection. Bridges are fabricated by forming cavities (33, 34) on the underside of the intermediate layer to accommodate the lower track.

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