

MASKING METHODS FOR ALD PROCESSES FOR ELECTRODE-BASED DEVICES

ABSTRACT

Masking methods for atomic-layer-deposition processes for electrode-based devices are disclosed, wherein solder is used as a masking material. The methods include exposing electrical contact members of an electrical device having an active device region and a barrier layer formed by atomic layer deposition. This includes depositing solder elements on the electrical contact members, then forming the barrier layer using atomic layer deposition, wherein the barrier layer covers the active device region and also covers the solder elements that respectively cover the electrical contact members. The solder elements are then melted, which removes respective portions of the barrier layer covering the solder elements. Similar methods are employed for exposing contacts when forming layered capacitors.

Fig. 1A