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(54) **Title**: NOZZLE FOR STRESS-FREE POLISHING METAL LAYERS ON SEMICONDUCTOR WAFERS

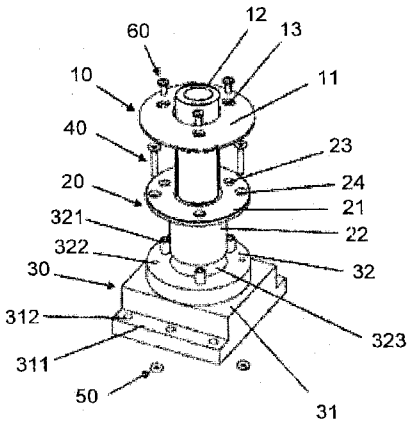


FIG 2

(57) **Abstract**: A nozzle for charging and ejecting electrolyte in SFP process is disclosed. The nozzle includes an insulated foundation defining a through-hole, a conductive body as negative electrode connecting with a power source for charging the electrolyte and an insulated nozzle head. The conductive body has a fixing portion located on the insulated foundation. The fixing portion protrudes to form a receiving portion inserted into the through-hole and defining a receiving hole passing therethrough and the fixing portion. The insulated nozzle head has a cover stably assembled with the insulated foundation above the conductive body and a tube extending through the cover and defining a main fluid path through where the charged electrolyte is ejected for polishing. The tube is inserted in the receiving hole and stretches out of the receiving hole of the conductive body. An auxiliary fluid path is formed between an inner circumferential surface of the receiving portion and an outer circumferential surface of the tube.

WO 2013/143115 A1