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(54) **Title**: PROBE CARDS INCLUDING NANOTUBE PROBES AND METHODS OF FABRICATING

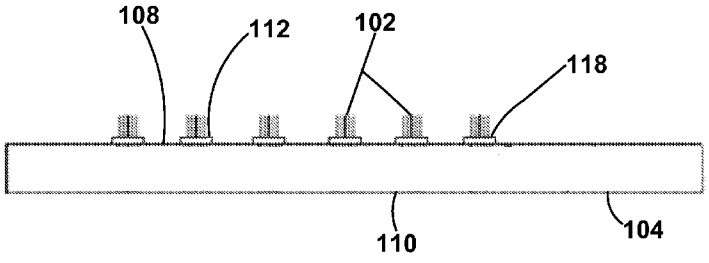


FIG. 2

(57) **Abstract**: Methods of fabricating a plurality of carbon nanotube-bundle probes on a substrate are disclosed. In some embodiments, the method includes the following: providing a substrate having a top surface and a bottom surface; forming an array of electrically conductive pads on the top surface, the array of electrically conductive pads being formed to mirror an array of pads on an integrated circuit that is to be tested; applying a catalyst for promoting growth of carbon nanotubes on each of the array of electrically conductive pads; heating the substrate in a carbon-rich environment thereby growing nanotubes extending upwardly from each of the array of electrically conductive pads and above the top surface of the substrate thereby forming a plurality of carbon nanotube-bundle probes extending upwardly above the top surface of the substrate; and capping each of the plurality of carbon nanotube-bundle probes with an electrically conductive material.