

REMOVAL OF SURFACE OXIDES BY ELECTRON ATTACHMENT

ABSTRACT OF THE DISCLOSURE

Described herein are a method and an apparatus for removing metal oxides from a substrate surface within a target area. In one particular embodiment, the method and apparatus has an energizing electrode which has an array of protruding conductive tips that
5 are electrically connected by a conductive wire and separated into a first electrically connected group and a second electrically connected group wherein at least a portion of the conductive tips are activated by a DC voltage source that is negatively biased to generate electrons within the target area that attach to at least a portion of a reducing gas that is present in the target area to form a negatively charged reducing gas that contacts the
10 treating surface to reduce the metal oxides on the treating surface of the substrate.

Figure 15