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FORMATION OF A METALIC INTERLOCKING STRUCTURE

ABSTRACT

An electronic structure including a metallic interlocking structure for a bonding conductive plated layer to metal surface, and a method of forming the electronic structure are provided. The method provides a substrate (10) having a metallic sheet (14) within a dielectric layer (12). An opening (24) in the substrate (10) is formed by laser drilling through the dielectric layer (12) and partially through the metallic sheet (14). A surface (32) at the bottom of the opening (24) called a "blind surface", includes a metallic protrusion (30) formed by laser drilling integral with a portion of the blind surface (32). The metallic protrusion (30) includes the metal of the metallic sheet (14) and at least one constituent element from the dielectric layer (12). The metallic protrusion (30) is etched to form a metallic interlocking structure (40) integral with the portion of the blind surface (30). The metallic interlocking structure (40) includes discrete metallic fibers (41), with each metallic fiber (41) having a curved geometry.



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FIG.3.