

HIGH TEMPERATURE ALLOYS, AND ARTICLES MADE AND REPAIRED THEREWITH

ABSTRACT OF THE DISCLOSURE

An alloy, an article comprising the alloy, and methods for manufacturing and repairing an article that employ the alloy are presented. The alloy comprises, in atom percent, at least about 50% rhodium, up to about 49% of a first material, from about 1% to about 15% of a second material, and up to about 10% of a third material. The first material comprises at least one of palladium, platinum, iridium, and combinations thereof. The second material comprises at least one of tungsten, rhenium, and combinations thereof. The third material comprises at least one of ruthenium, chromium, and combinations thereof. The alloy comprises an A1-structured phase at temperatures greater than about 1000° C, in an amount of at least about 90% by volume.

(No attached figure)