

STRIP PROCESS FOR SUPERALLOYS

ABSTRACT OF THE DISCLOSURE

A process for forming a coated substrate comprises providing a nickel base alloy substrate, depositing a chromium coating onto the nickel base alloy substrate and diffusing chromium from said coating into the substrate, applying a MCrAlY coating onto the nickel base alloy substrate and heat treating the substrate with the deposited chromium and the MCrAlY coating so that chromium diffuses into an outer region of the substrate. Further, in accordance with the present invention, a strip process for removing a coating from a substrate broadly comprises the steps of providing a nickel base alloy substrate having chromium diffused into an outer region and a MCrAlY coating deposited over the substrate with the diffused chromium and removing the MCrAlY coating by immersing the nickel base alloy substrate in an acid solution containing a sulfuric acid - hydrochloric acid mixture in water.

FIGURE 3A