CONSTRUCTIONS AND DEVICES INCLUDING TANTALUM OXIDE LAYERS ON NIOBIUM NITRIDE AND METHODS FOR PRODUCING THE SAME

ABSTRACT

Methods, constructions, and devices that include tantalum oxide layers (50) adjacent to niobium nitride (30) are disclosed herein. In certain embodiments, the niobium nitride is crystalline and has a hexagonal close-packed structure. Optionally, the niobium nitride can have a surface (35) that includes niobium oxide (40) adjacent to at least a portion thereof. In certain embodiments, the tantalum oxide layer is crystallographically textured and has a hexagonal structure.

FIGURE 1