ULTRA-HIGH PURITY NiPt ALLOYS AND SPUTTERING TARGETS COMPRISING SAME

Abstract of the Disclosure

A method of making a NiPt alloy having an ultra-high purity of at least about 4N5 and suitable for use as a sputtering target, comprises steps of: heating predetermined amounts of lesser purity Ni and Pt at an elevated temperature in a crucible to form a NiPt alloy melt, the crucible being composed of a material which is inert to the melt at the elevated temperature; and transferring the melt to a mold having a cavity with a surface coated with a release agent which does not contaminate the melt with impurity elements. The resultant NiPt alloy has a very low concentration of impurity elements and is subjected to cross-directional hot rolling for reducing thickness and grain size.

(Fig. 1)