

Title (en)

Fabrication process of uranium foil having fine grains solidified rapidly from melt using roll, and the fabrication apparatus

Title (de)

Herstellungsverfahren von feinkörniger Uranfolie aus schnell abgekühlter Schmelze durch Kühlwalzen und Herstellungsgerät

Title (fr)

Procédé de fabrication d'un ruban en uranium à grains fins solidifié rapidement par un cylindre refroidisseur et appareil de fabrication

Publication

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Application

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Priority

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Abstract (en)

The present invention is concerned with the fabrication process of low or high enrichment uranium and uranium alloy foil, and the fabrication apparatus therefor. Uranium (U) and uranium alloy ÄU-(A)Q-(B)X-(C)Y (Q: Al, Fe, Ni, Si, Cr, Zr element, X: Al, Fe, Ni, Si, Cr, Zr element, Y: Al, Fe, Ni, Si, Cr, Zr element, Q NOTEQUAL X NOTEQUAL Y, $(A) \leq 1 \text{ wt\%}$, $(B) \leq 1 \text{ wt\%}$, $(C) \leq 1 \text{ wt\%}$)Ü foil are directly obtained from a melt, not through a vacuum induction melting & casting, ingot cutting, hot-rolling and heat-treatment process, but through melt spinning or a twin-roll casting process. Major advantages have been obtained as follows: 1) a simplified process without the hot-rolling process and heat-treatment process, 2) an improvement in productivity and process economics in foil fabrication, and 3) a high purity and a high quality of the foil.

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