

阳离子交换分离-水平式ICP-AES法测定Zr-Nb合金中微量Gd,Sm,Dy,Eu

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摘要 <正> 核工程要求Zr-Nb合金中Gd,Sm,Dy,Eu量不大于0.1ppm。 Zr-Nb合金中RE杂质的分析,未见报道。但有人用阳离子交换-PMBP萃取二次分离后光谱测定Zr-Nb合金中RE;还有人用铜铁试剂沉淀,PMBP萃取、D₂EH₂PA反相

关键词 [阳离子交换分离](#) [水平式ICP-AES法](#) [Zr-Nb合金](#) [Gd](#) [Sm](#) [Dy](#) [Eu](#)

分类号

THE DETERMINATION OF TRACE Gd, Sm, Dy, and Eu IN Zr-Nb ALLOY BY CATION ION-EXCHANGE SEPARATION-HORIZONTAL ICP-AES METHOD

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Abstract In this method, the Zr-Nb alloy sample is dissolved in HF and converted into sulfates with H₂SO₄. Then the RE are separated from Zr and the other elements with cation ion-exchange resin, and then determined by horizontal ICP-AES. This method can determine 0.04ppm Gd, Sm and 0.008ppm Dy, Eu and with 1 gram sample the relative standard deviation is less than $\pm 1\%$. The percentage recovery is 90--115%. This method is also simple and rapid.

Key words [Zr-Nb alloy](#) [Horizontal ICP](#) [RE](#) [Cation ion -exchange separation](#)

DOI

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