

[54] **NON-EVAPORABLE TERNARY GETTERING ALLOY AND METHOD OF USE FOR THE SORPTION OF WATER, WATER VAPOR AND OTHER GASES**

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[30] **Foreign Application Priority Data**

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[51] **Int. Cl.³** **C22C 16/00**

[52] **U.S. Cl.** **75/177; 55/33; 376/418**

[58] **Field of Search** **75/177; 176/91 R, 68; 55/33**

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[57] **ABSTRACT**

A non-evaporable getter alloy is provided which can be used in a process for the sorption of gas from a closed vessel comprising the step of:

introducing into the vessel a non-evaporable ternary gettering alloy whose composition in weight percent when plotted on a ternary composition diagram in weight percent Zr, weight percent V and weight percent Fe lies with a polygon having as its corners the points defined by:

- (a) 75% Zr-20% V-5% Fe
- (b) 45% Zr-20% V-35% Fe
- (c) 45% Zr-50% V-5% Fe

such alloys can sorb water vapor without the release of H₂ between 200°-350° C. and can be used in a wide temperature range for the sorption of other gases. They can also be activated in short times at relatively low temperatures, to be used as a getter at room temperature.

8 Claims, 16 Drawing Figures

