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(54) **Title:** HAFNIUM NITRIDE ADHESION LAYER

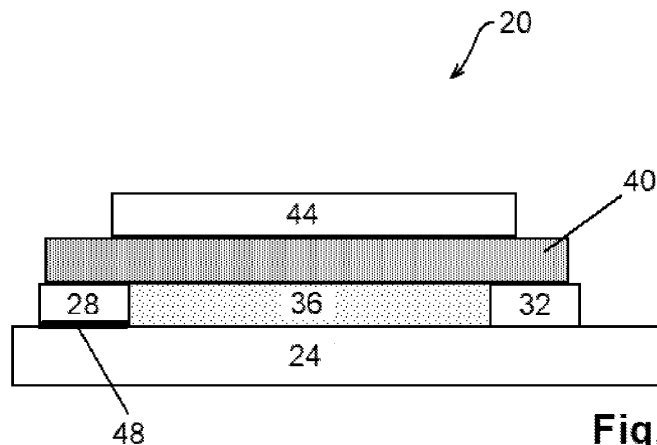


Fig. 1

(57) **Abstract:** A novel adhesion layer of hafnium nitride useful in the fabrication of semiconductor devices is disclosed. In particular, semiconductor devices such as, for example, thin film transistors which include one or more elements formed of metals with high electron concentrations, such as molybdenum, tungsten, nickel, ruthenium, cobalt and alloys thereof, can employ the present invention to better adhere the metal elements to the dielectric material on which the semiconductor devices are formed and the adhesion layer can also serve as a diffusion barrier.

[Continued on next page]

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