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(71) Applicant: **VERSUM MATERIALS US, LLC** [US/US];
8555 South River Parkway, Tempe, Arizona 85284 (US).

(72) Inventors: **WELING, Milind**; c/o Versum Materials US, LLC, 8555 South River Parkway, TEMPE, Arizona 85284 (US). **CHU, Michael**; c/o Versum Materials US, LLC, 8555 South River Parkway, Tempe, Arizona 85284 (US). **MUKUND, Shridhar**; c/o Versum Materials US, LLC, 8555 South River Parkway, Tempe, Arizona 85284 (US). **DERTINGER, Stephan**; c/o Versum Materials US, LLC, 8555 South River Parkway, Tempe, Arizona 85284 (US).

(74) Agent: **WYNINEGAR, JR., James D.**; Versum Materials US, LLC, c/o EMD Millipore Corporation, 400 Summit Drive, Burlington, Massachusetts 01803 (US).

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(54) Title: FET STRUCTURES USING AMORPHOUS OXIDE SEMICONDUCTOR CHANNELS ON INTEGRATED CIRCUITS

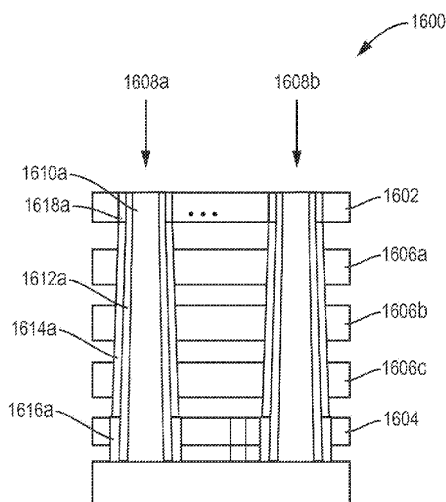


FIG. 16

(57) Abstract: Disclosed herein is a FeFET transistor and related integrated circuits. The channel layer of the transistor (1612a) may be formed from an Amorphous Oxide Semiconductor. Examples of amorphous oxide semiconductors that could be utilized include Indium Oxide, Indium Gallium Zinc Oxide (IGZO), Zinc Tin Oxide (ZTO), Indium Zinc Oxide (IZO), Gallium Zinc Oxide (GZO), Aluminum Zinc Oxide (AZO), Cadmium Oxide, Hafnium Indium Zinc Oxide (HIZO), Tin Oxide, and Indium-Tin-Zinc Oxide (ITZO), among others. The amorphous oxide semiconductor channel layer may also be doped with elements such as Gallium, Indium, Zinc, Tin, Hafnium, Silicon, Aluminum, and others to optimize carrier concentration and mobility.

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