

Abstract**THERMAL INSULATION FOR THREE-DIMENSIONAL MEMORY ARRAYS**

Methods, systems, and devices for a three-dimensional memory array are described. Memory cells may transform when exposed to elevated temperatures, including elevated temperatures associated with a read or write operation of a neighboring cell, corrupting the data stored in them. To prevent this thermal disturb effect, memory cells may be separated from one another by thermally insulating regions that include one or several interfaces. The interfaces may be formed by layering different materials upon one another or adjusting the deposition parameters of a material during formation. The layers may be created with planar thin-film deposition techniques, for example.

Figure 3