

ABSTRACT

An embodiment of the present invention is a method of manufacturing a perpendicular MTJ device which includes: a first stacked structure including a pair of CoFeB layers sandwiching an MgO layer; and a second stacked structure including a multilayer, the method comprising the steps of: forming one of the first and second stacked structures on a substrate; inspecting a property of the substrate with the one of the first and second stacked structures formed thereon while exposing the substrate to the atmosphere; and forming another one of the first and second stacked structures on the substrate with the one of the first and second stacked structures formed thereon.