

## **MAGNETO-ELASTIC ANISOTROPY ASSISTED THIN FILM STRUCTURE**

### **ABSTRACT OF THE DISCLOSURE**

A thin film structure, such as a magnetic recording media, having a magnetic layer and a stress-effecting layer is disclosed. The stress-effecting layer induces a magneto-elastic anisotropy in the magnetic layer. The stress-effecting layer can be activated by the application of an external stress and/or strain. The induced magneto-elastic anisotropy can transiently achieve and/or enhance a tilt angle of the medium. The medium can be a perpendicular magnetic recording medium, a longitudinal magnetic recording medium and/or a tilted magnetic recording medium. The magnetic recording media is suitable for use with a data storage system, such as a HAMR data storage system.

### **FIGURE 2**