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**Tang et al.**

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(54) **METHOD AND SYSTEM FOR PROVIDING A HIGH MOMENT FILM**

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**G11B 5/147** (2006.01)  
**G11B 5/31** (2006.01)

(52) **U.S. Cl.** ..... **360/125.12**; 360/125.08; 360/125.45;  
360/125.5

(58) **Field of Classification Search** ..... 360/125.08,  
360/125.12, 125.24, 125.26, 125.28, 125.45,  
360/125.58, 125.63, 125.69, 125.5  
See application file for complete search history.

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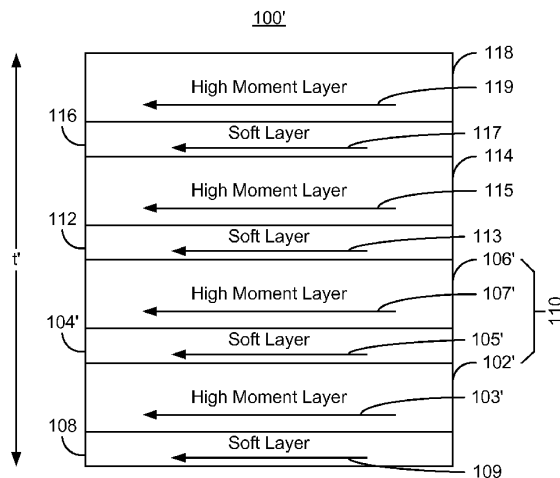
Primary Examiner — Craig A. Renner

Assistant Examiner — Adam B Dravininkas

(57) **ABSTRACT**

A method and system for providing a high moment film are disclosed. The high moment film might be used in structures, such as a pole, of a magnetic transducer. The method and system includes providing a plurality of high moment layers and at least one soft magnetic layer interleaved with and ferromagnetically coupled with the plurality of high moment layers. Each of the plurality of high moment layers has a magnetic moment of greater than 2.4 Tesla. The at least one soft magnetic layer has a hard axis coercivity of not more than twenty Oersted. The high moment film has a total thickness of at least one thousand Angstroms.

**21 Claims, 4 Drawing Sheets**



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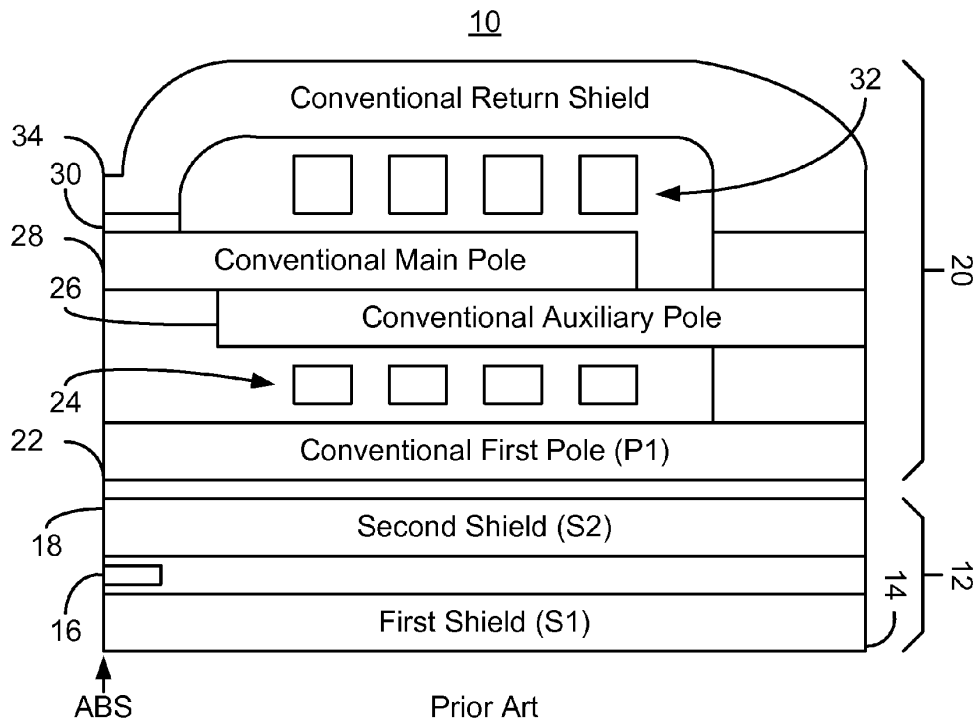
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Prior Art  
FIG. 1

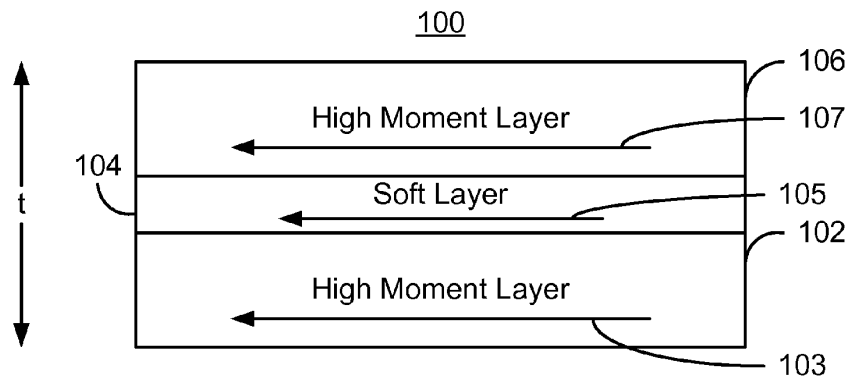


FIG. 2

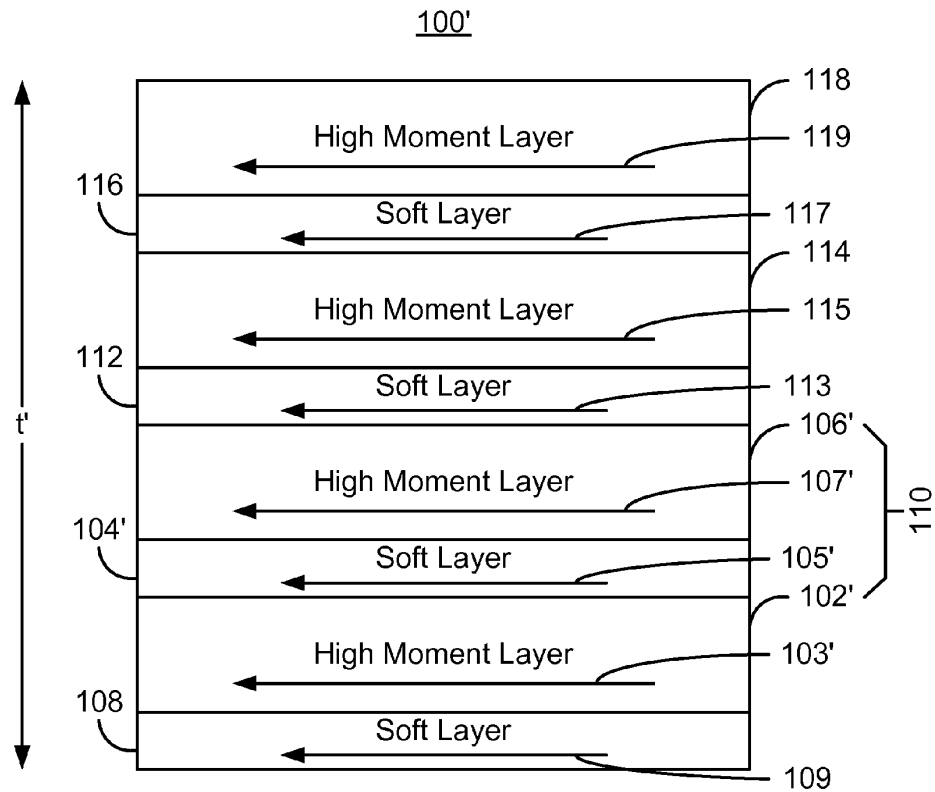


FIG. 3

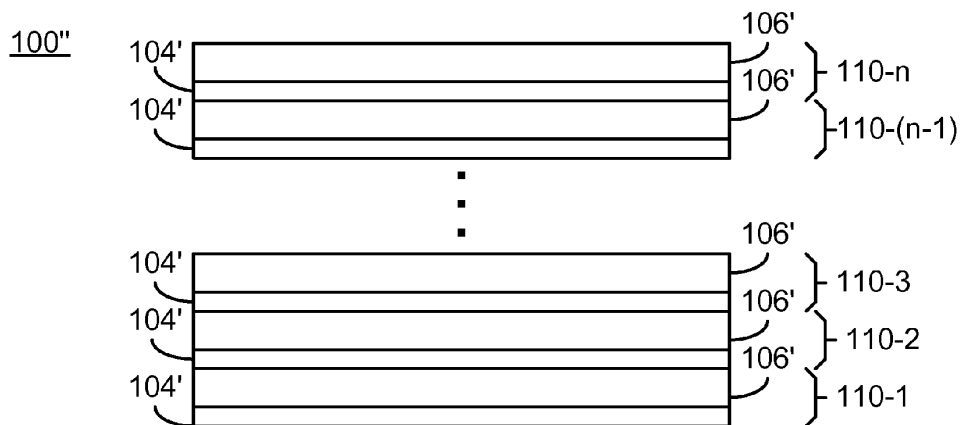


FIG. 3A

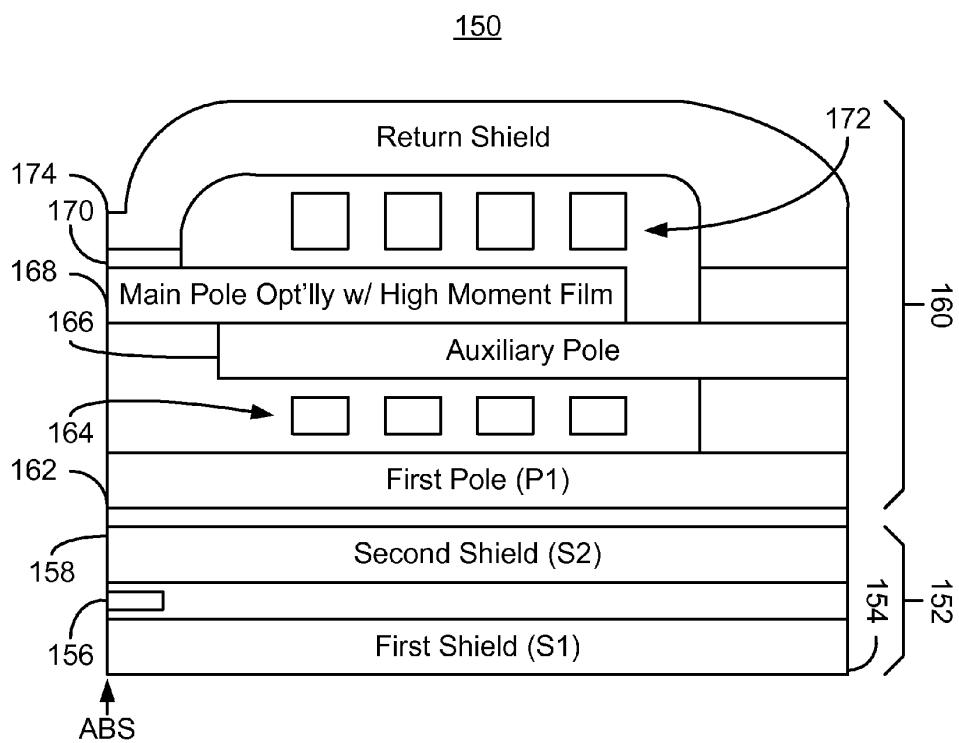


FIG. 4

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