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The problem of determination the magnetization position in one domain films with uniaxial magnetic anisotropy runs into difficulties connected with solving of four power equations. The geometrical method helps to surmount difficulties considering the magnetization vector position in respect of the critical curve (asteroid) [1]. In the article the analytical validity of the geometrical method is discussed and some further possibilities for determination of the magnetization position are indicated taking into account the minimum of the film energy in the external magnetic field.

Key words: Thin films, Magnetization, Magnetic anisotropy
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