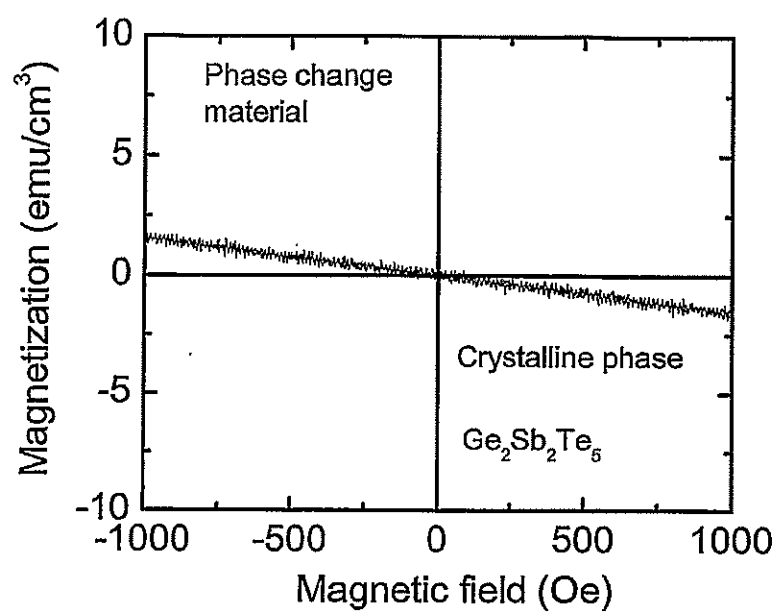
**FIG. 1**

**FIG. 2a**

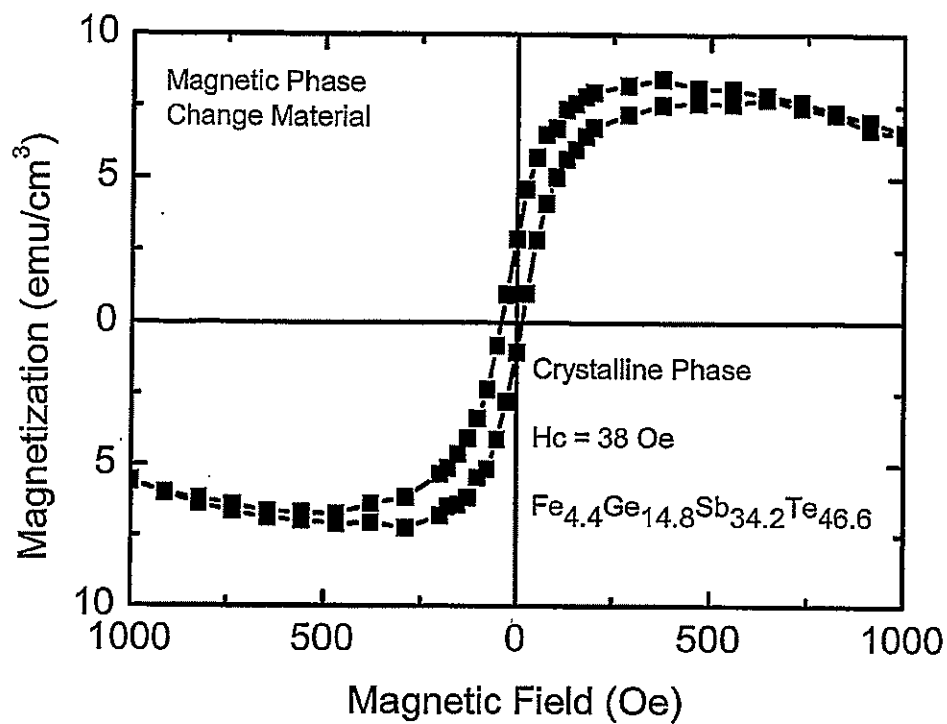


FIG. 2b

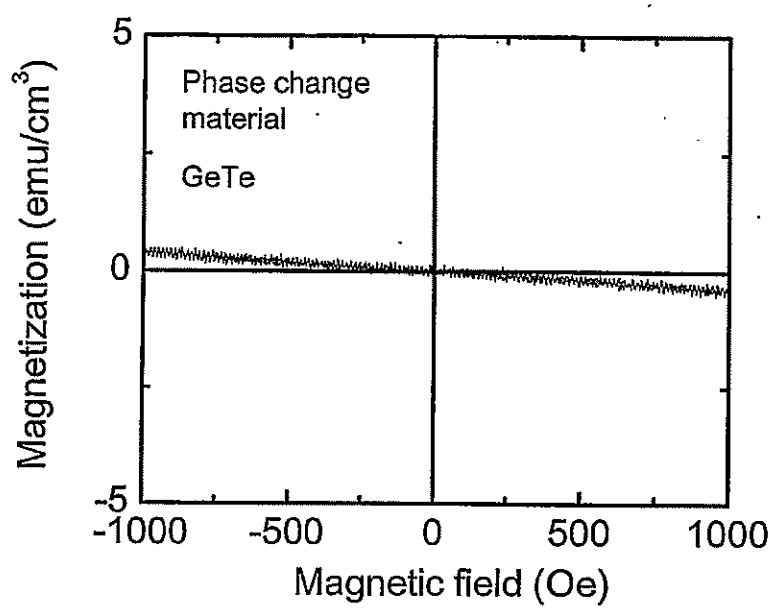


FIG. 2c

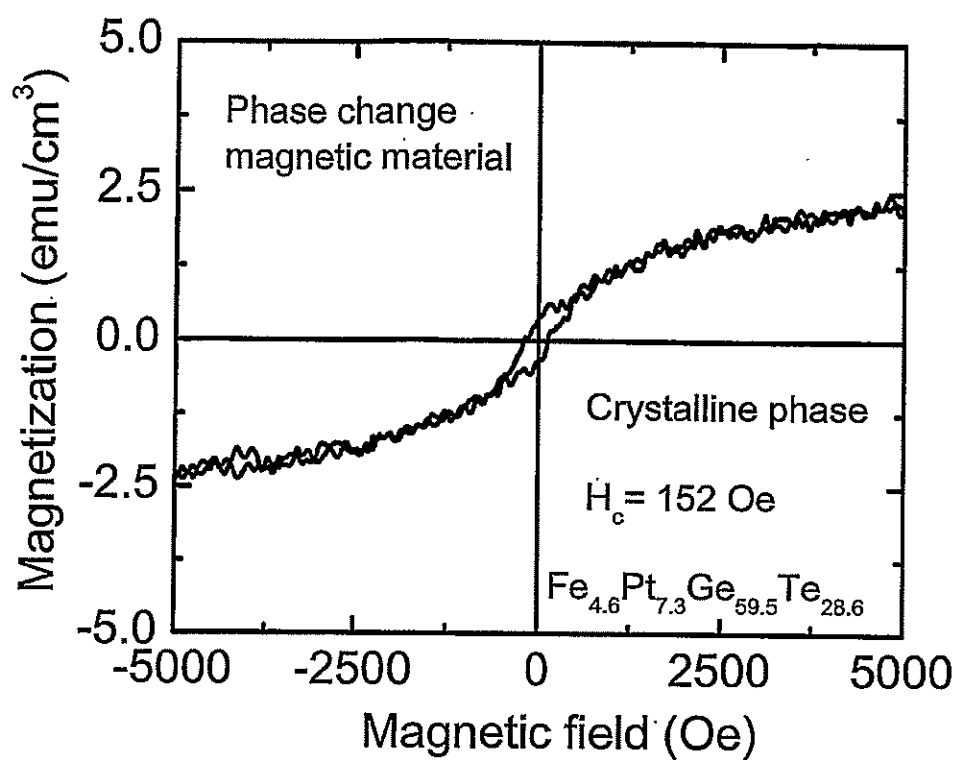
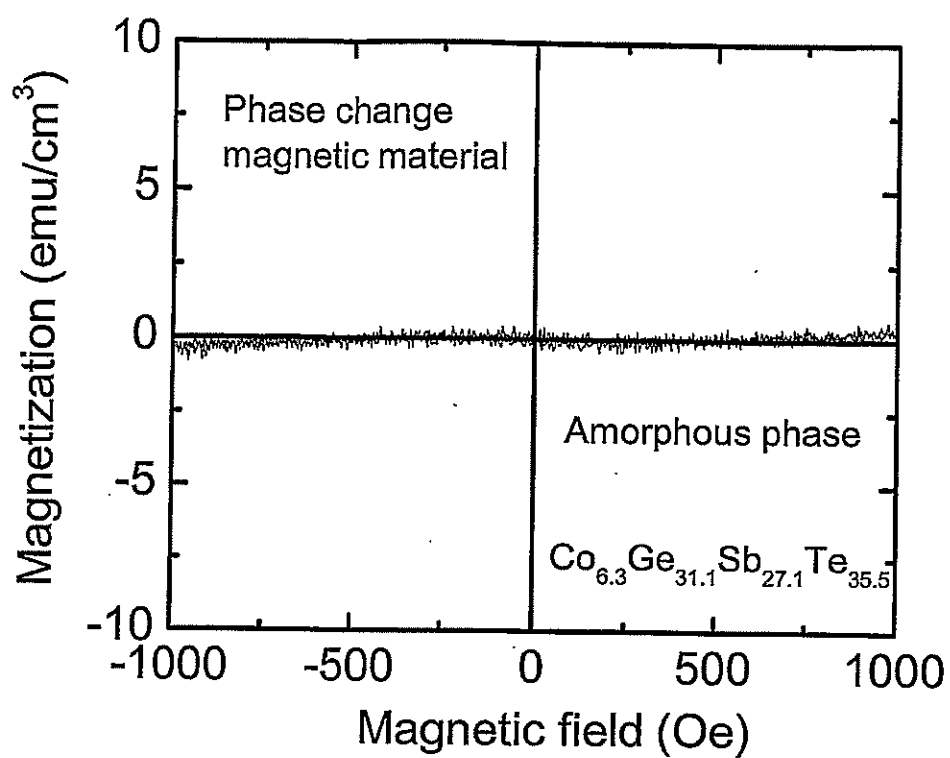


FIG. 2d

**FIG. 3a**

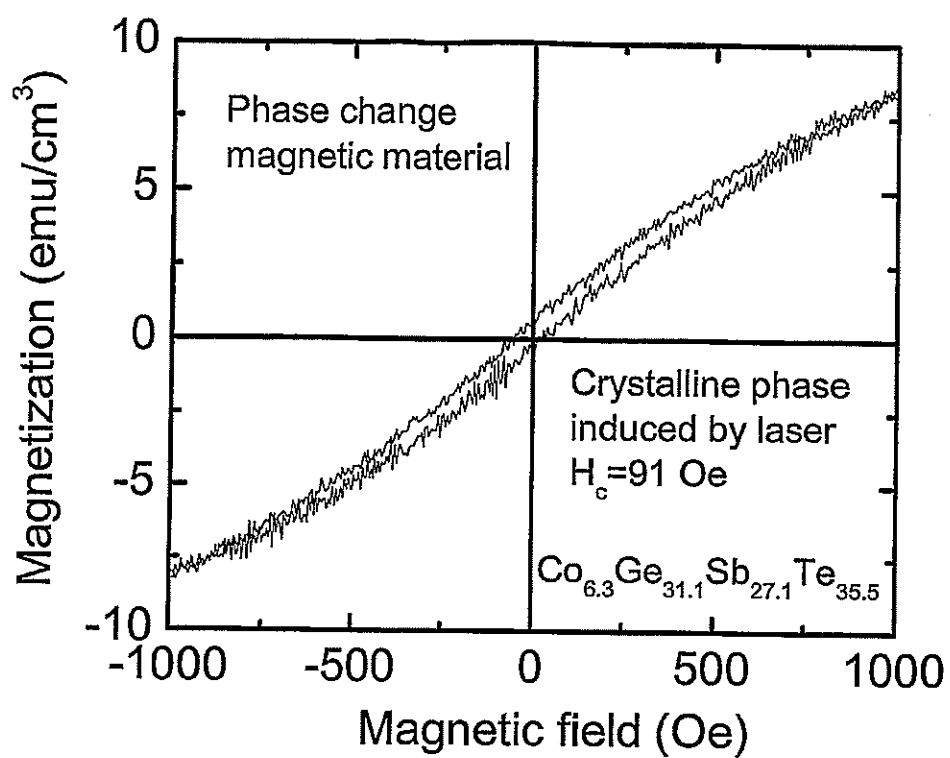


FIG. 3b



FIG. 4

Phase	Resistivity (Ωcm)	
	Phase change material	Magnetic phase change material
Amorphous	$1 \sim 10^3$	$1 \sim 10^3$
Crystalline	$10^{-1} \sim 10^{-4}$	$10^{-1} \sim 10^{-4}$

FIG. 5

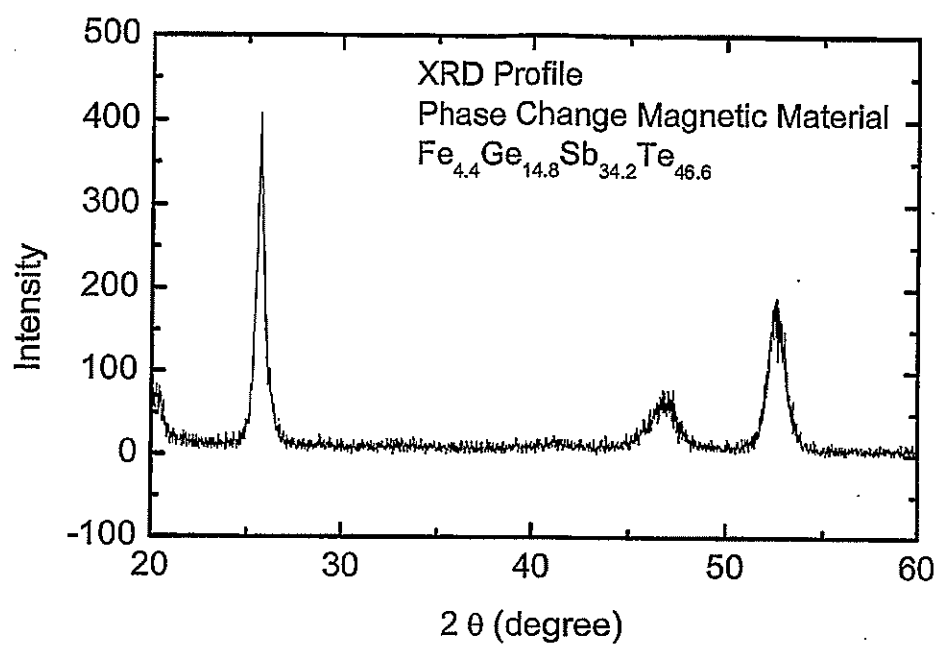
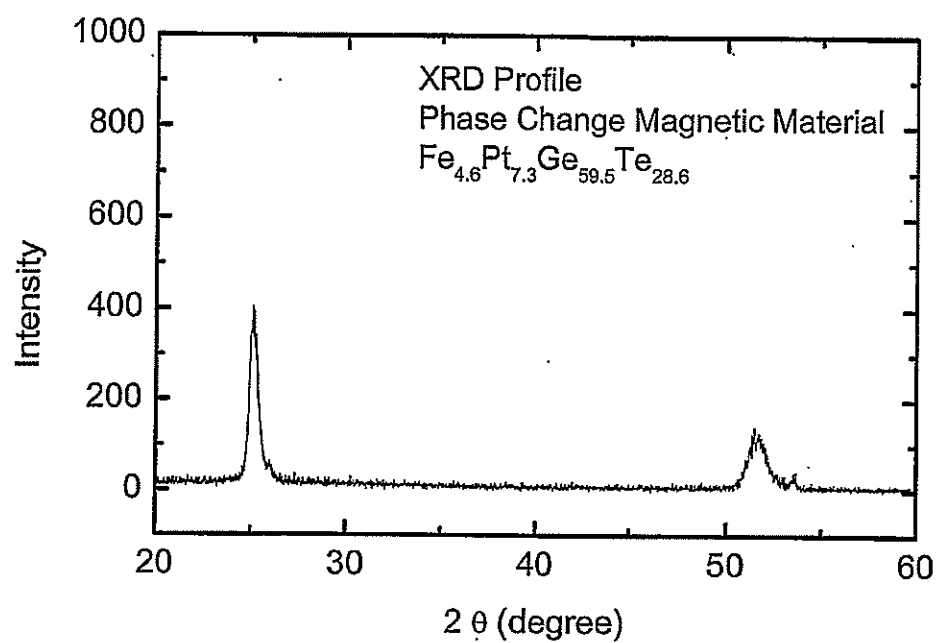
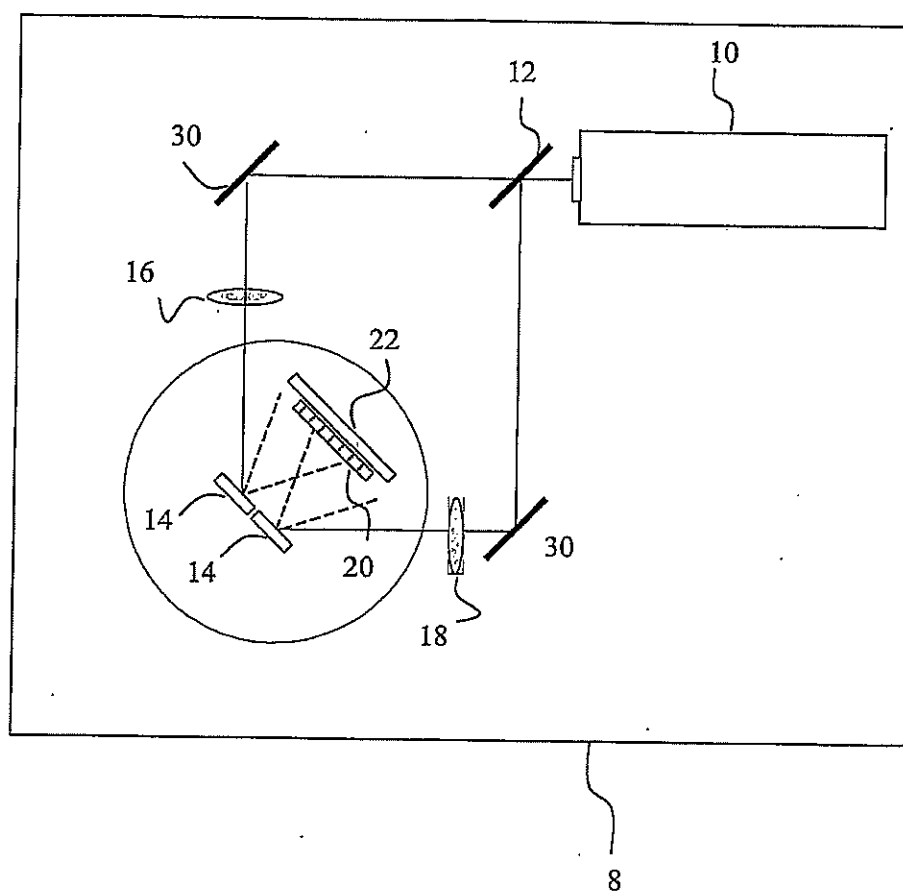


FIG. 6a

**FIG. 6b**

**FIG. 7a**

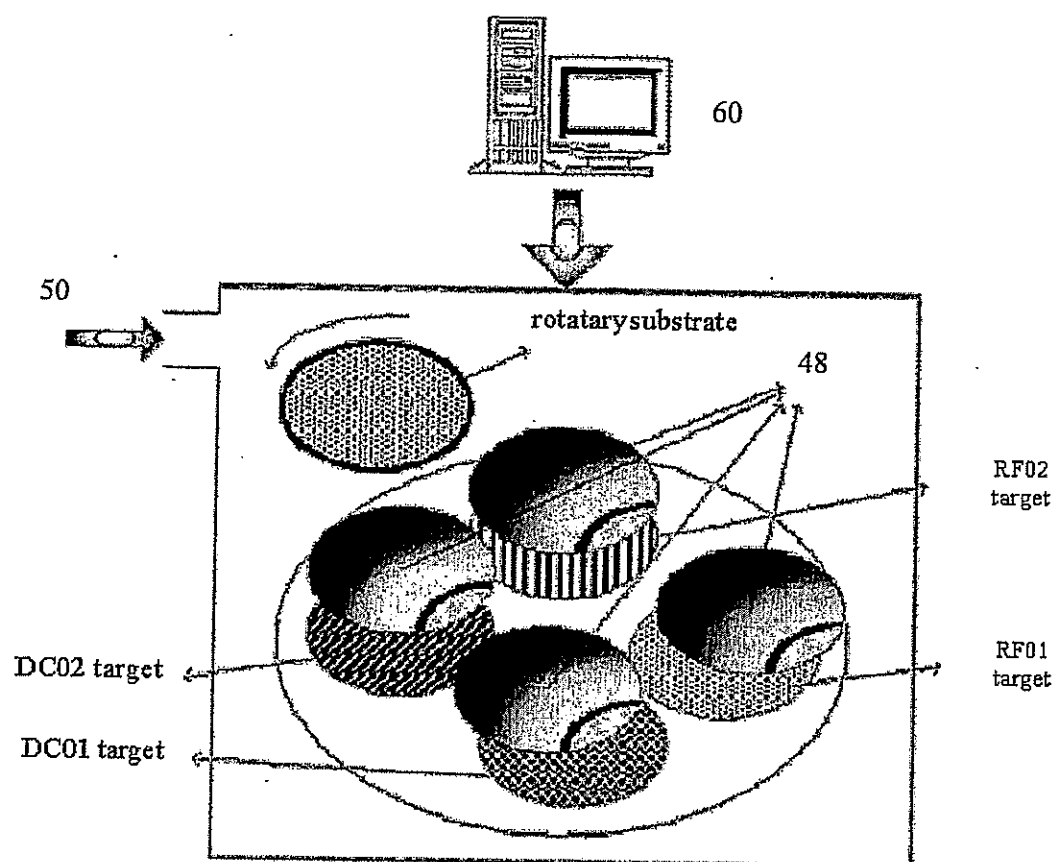


FIG. 7b