

Fig. 1

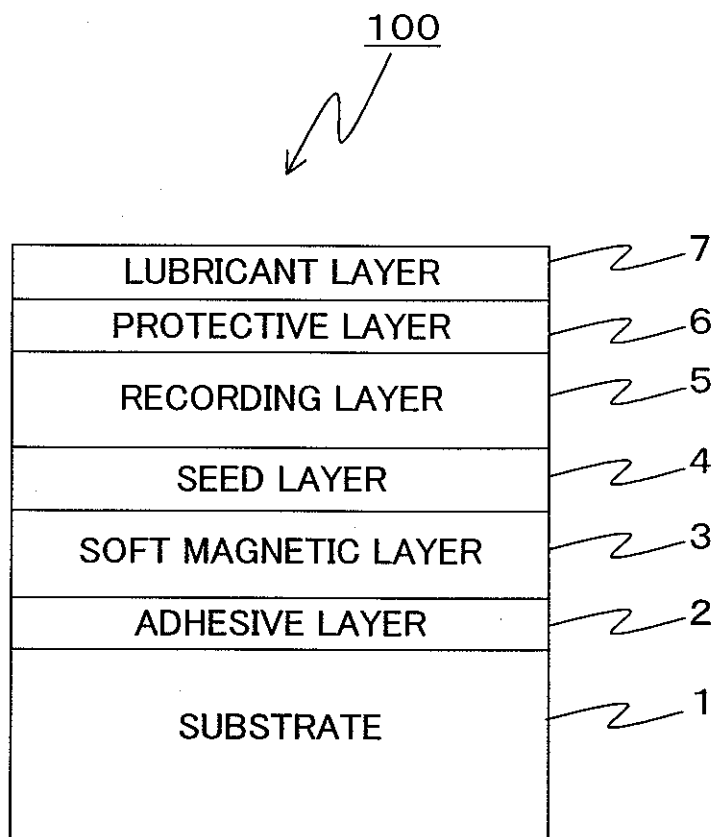


Fig. 2

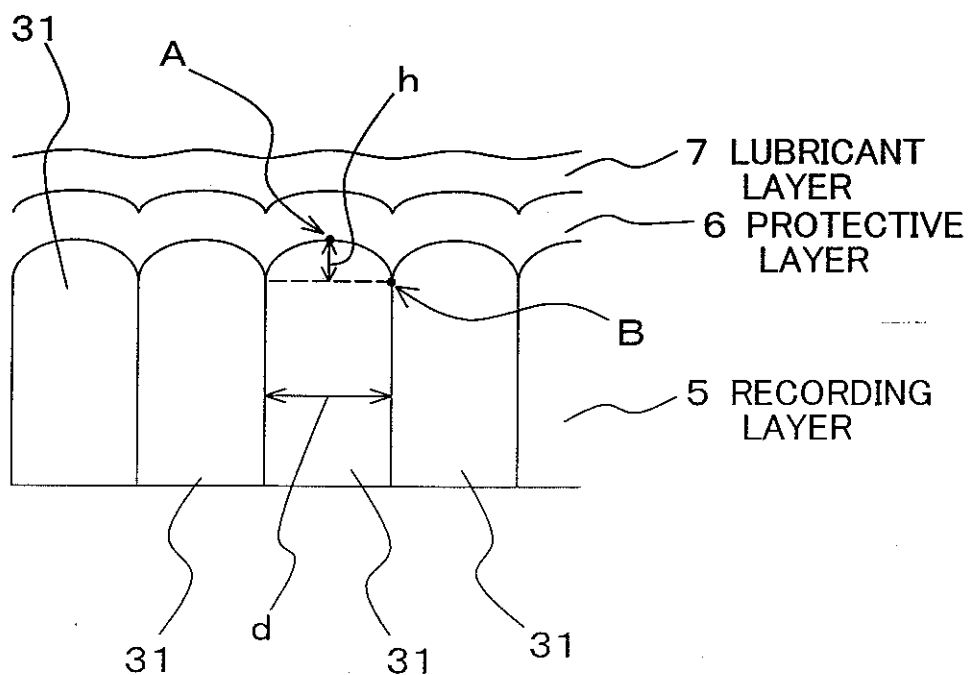
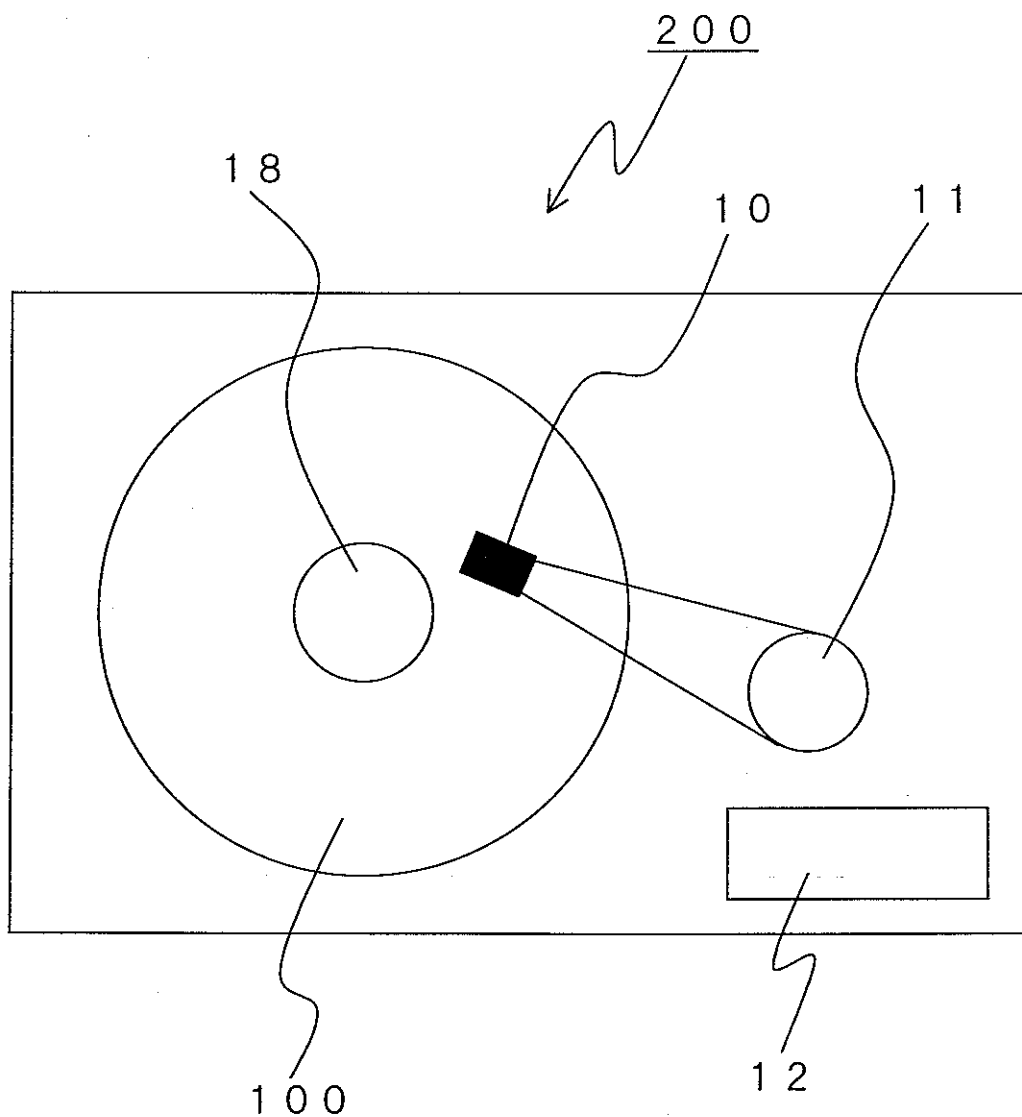


Fig. 3**Fig. 4**

	S/Nd (dB)	Re(%)	Thermal decay ratio (%/decade)
Example 1	15.3	20.8	0
Example 2	15.2	19.8	0
Example 3	14.9	18.6	0
Comparative Example 1	9.8	8.5	-5.2
Comparative Example 2	8.2	7.2	-6.4

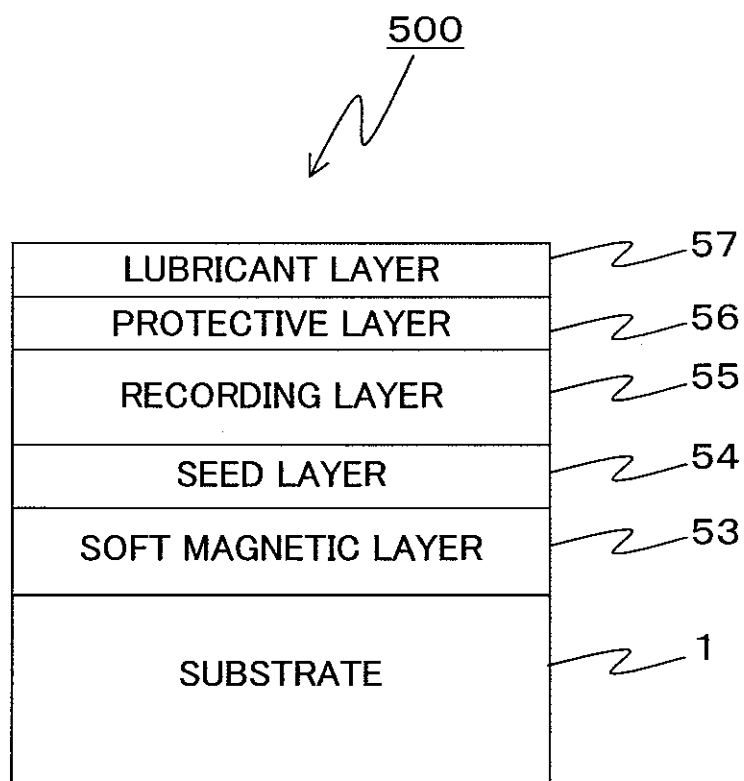
Fig. 5

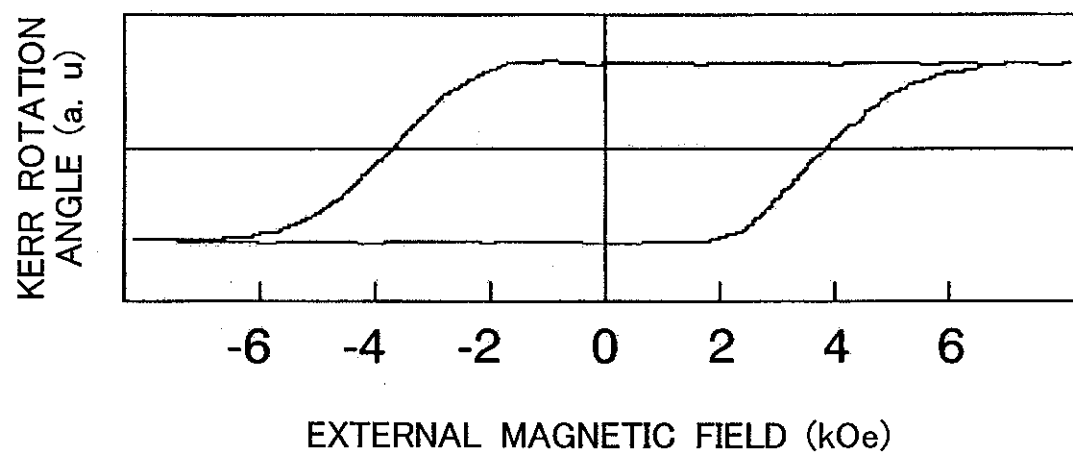
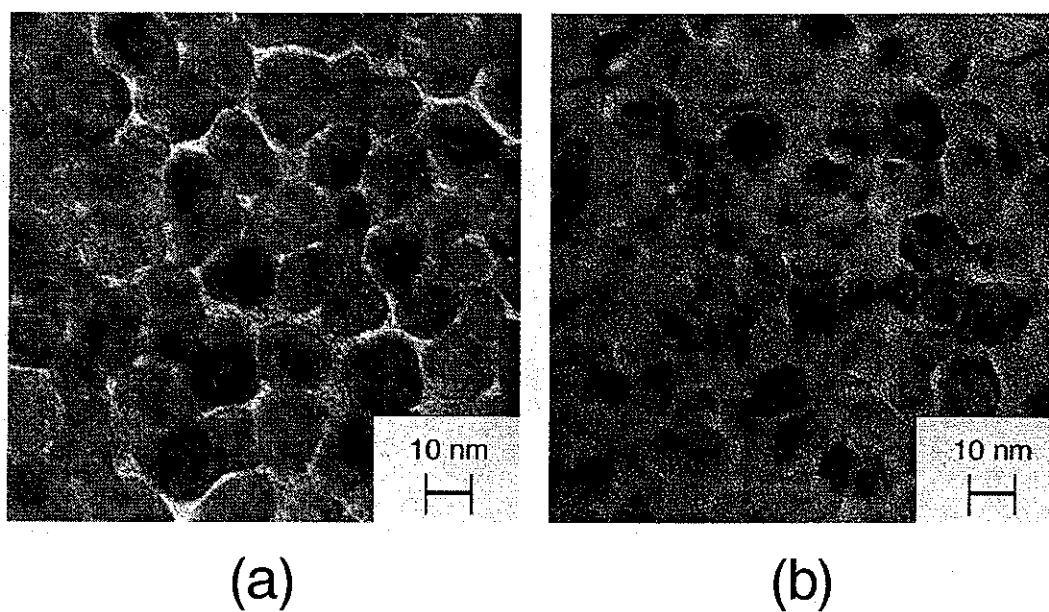
Fig. 6**Fig. 7**

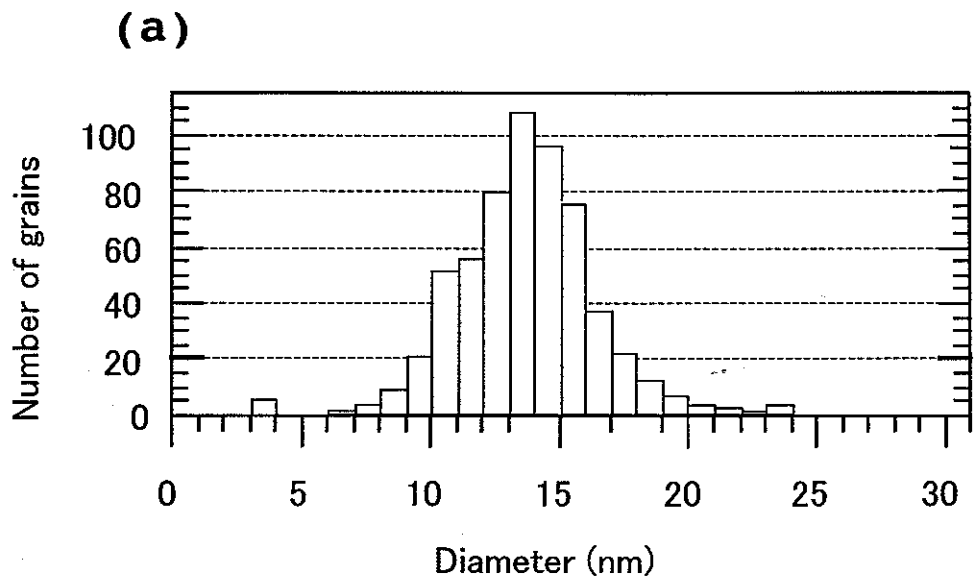
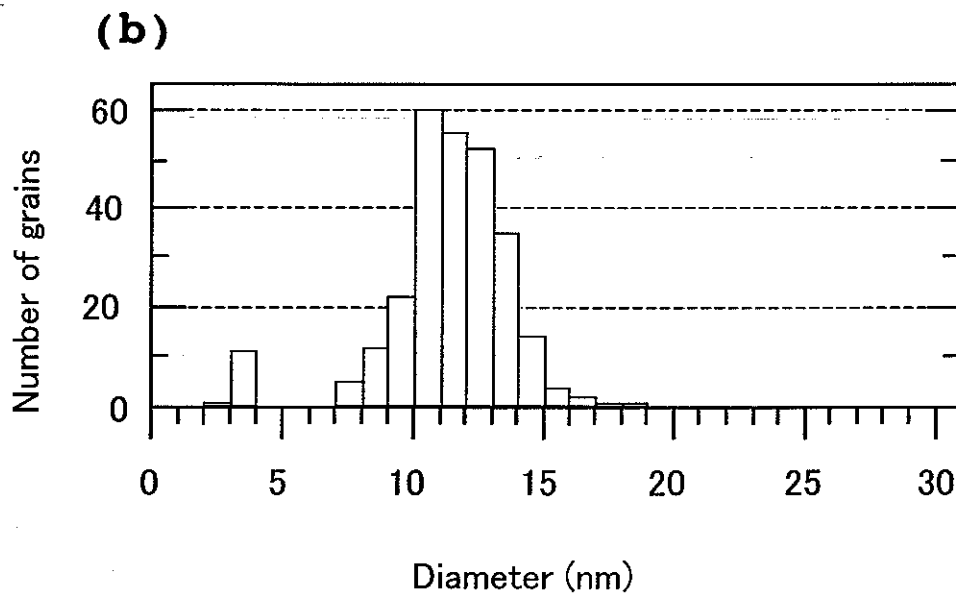
Fig. 8

Fig. 9

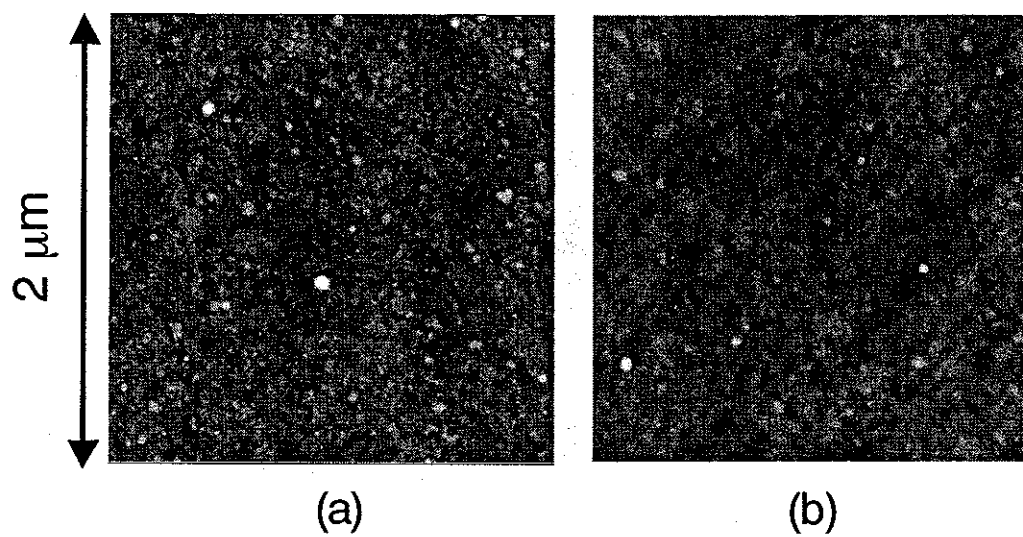


Fig. 10

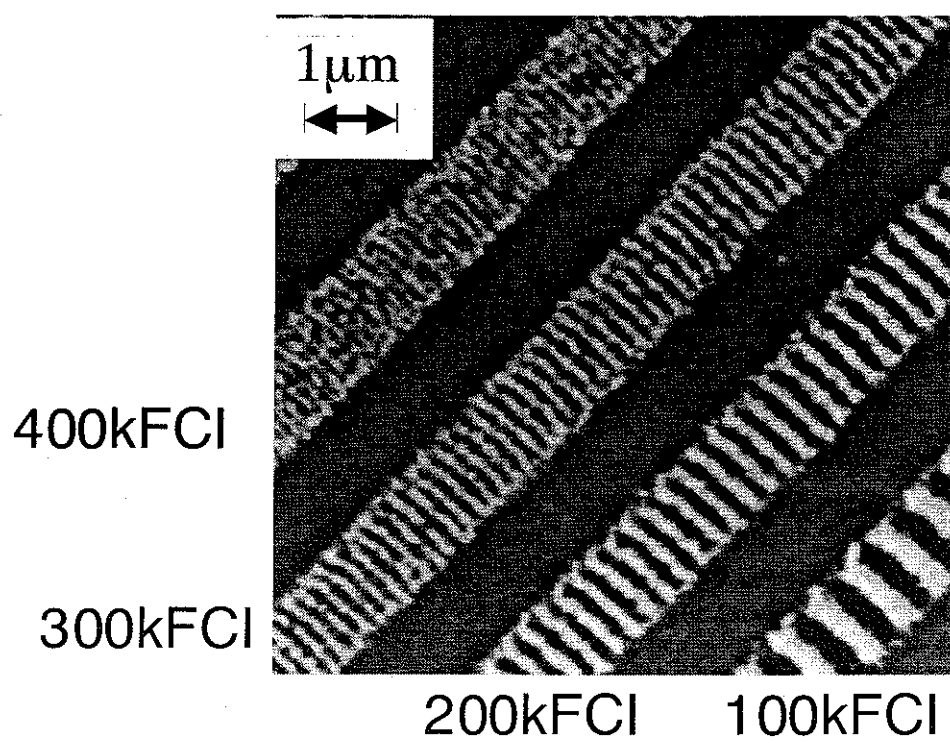


Fig. 11

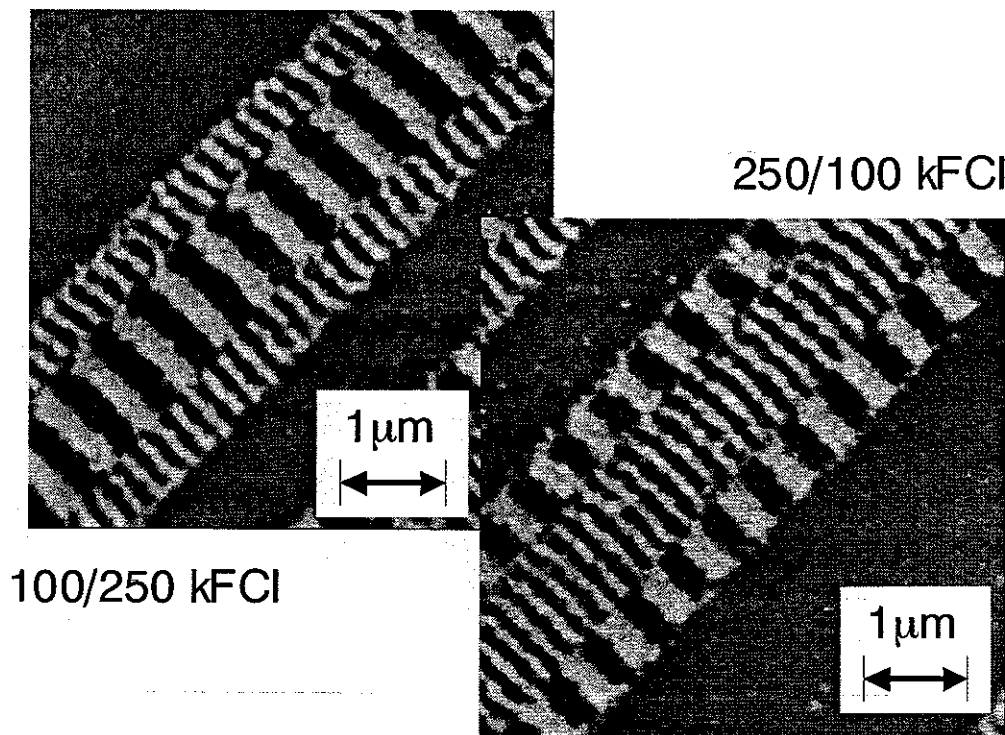


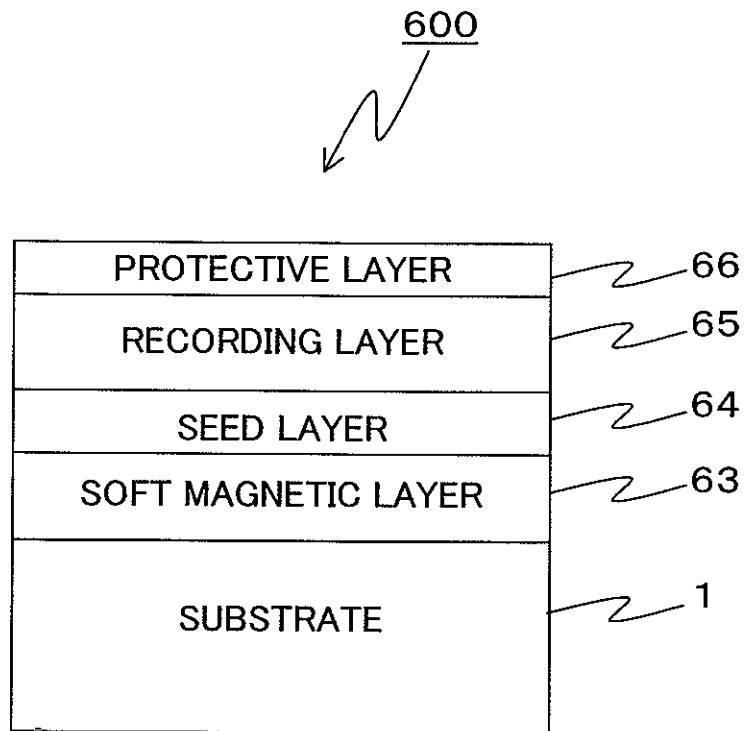
Fig. 12

Fig. 13

	LFop/N _d (dB)	D50 (kFCI)	Soft magnetic layer	Method for forming seed layer	Film thickness of seed layer (nm)	Recording layer
Example 10	22.9	186	FeTaC	reactive sputtering	5	Co/Pd
Example 11	23.5	182	FeTaC	high temperature oxidation	5	Co/Pd
Example 12	23.1	183	CoZrTa	reactive sputtering	5	Co/Pd
Example 13	21.1	190	FeTaC	reactive sputtering	5	Co/Pt
Example 14	21.7	160	FeTaC	reactive sputtering	30	Co/Pd
Comparative Example 4	18.3	190	FeTaC	—	0	Co/Pd
Comparative Example 5	18.6	187	FeTaC	—	0	Co/Pd
Comparative Example 6	15.8	192	CoZrTa	—	0	Co/Pt
Comparative Example 7	10.0	197	absent	reactive sputtering	0	Co/Pd
Reference Example 1	20.9	160	FeTaC	reactive sputtering	40	Co/Pd
Reference Example 2	20.0	155	FeTaC	reactive sputtering	50	Co/Pd

Fig. 14

	LFop/Nd (dB)	D50 (kFCl)	$\text{Fe}_{\text{Met}}/\text{Fe}_{\text{Oxi}}$ of seed layer (atom number ratio)	Film formation condition for seed layer		Sputtering etching for seed layer surface	Recording layer
				Flow rate ratio of O_2 with respect to Ar (%)	Thickness (nm)		
Example 15	25.2	188	0.03	6	5	absent	Co/Pd
Example 16	24.8	190	0.18	2.5	5	absent	Co/Pd
Example 17	24.9	187	0.04	6	5	absent	Co/Pt
Example 18	27.1	185	0.03	6	5	present	Co/Pd
Example 19	22.8	189	0.02	8	5	absent	Co/Pd
Example 20	15.7	192	0.22	1.5	5	absent	Co/Pd
Example 21	23.0	144	0.03	5	30	absent	Co/Pd
Example 22	21.5	187	0.01	8	5	absent	Co/Pt
Example 23	14.8	197	0.21	1.5	5	absent	Co/Pt

Fig. 15