

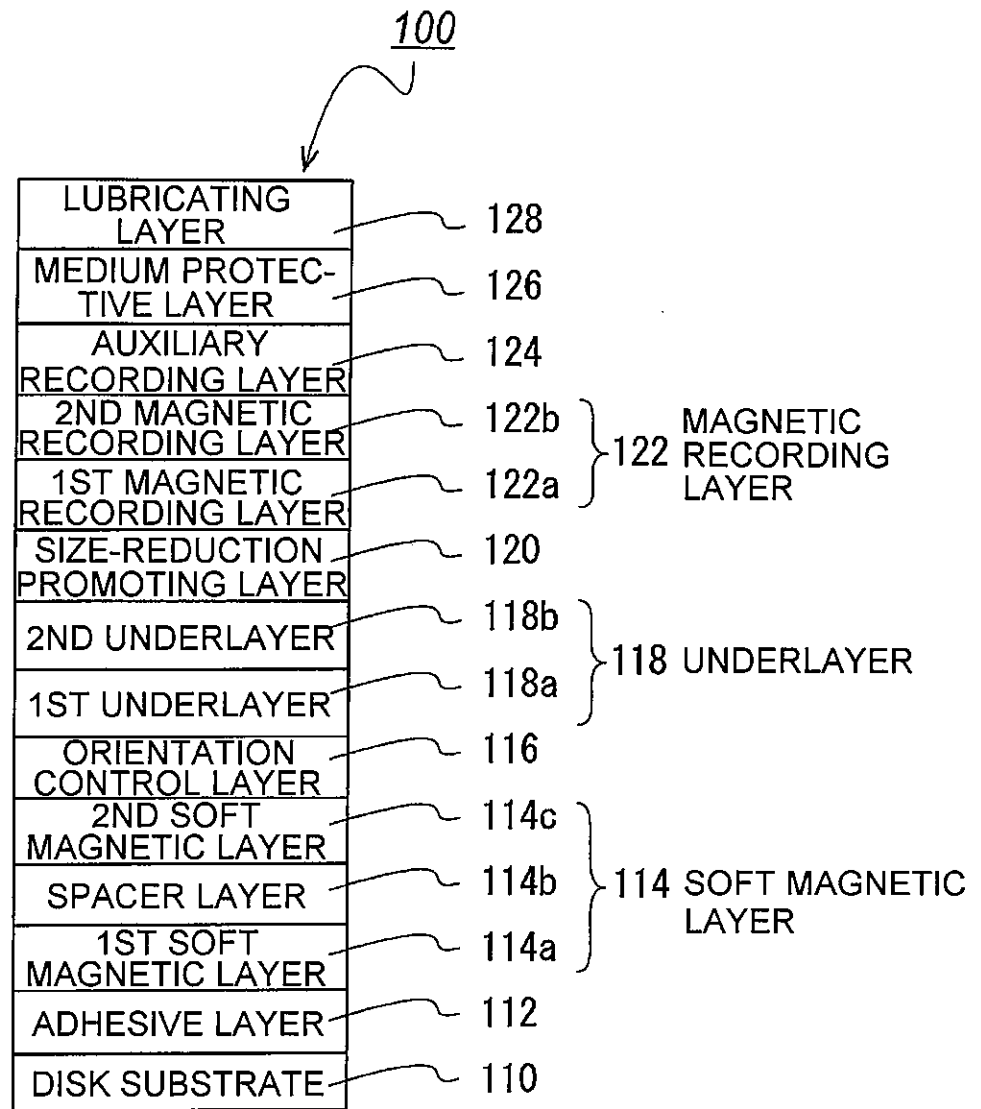


FIG. 1

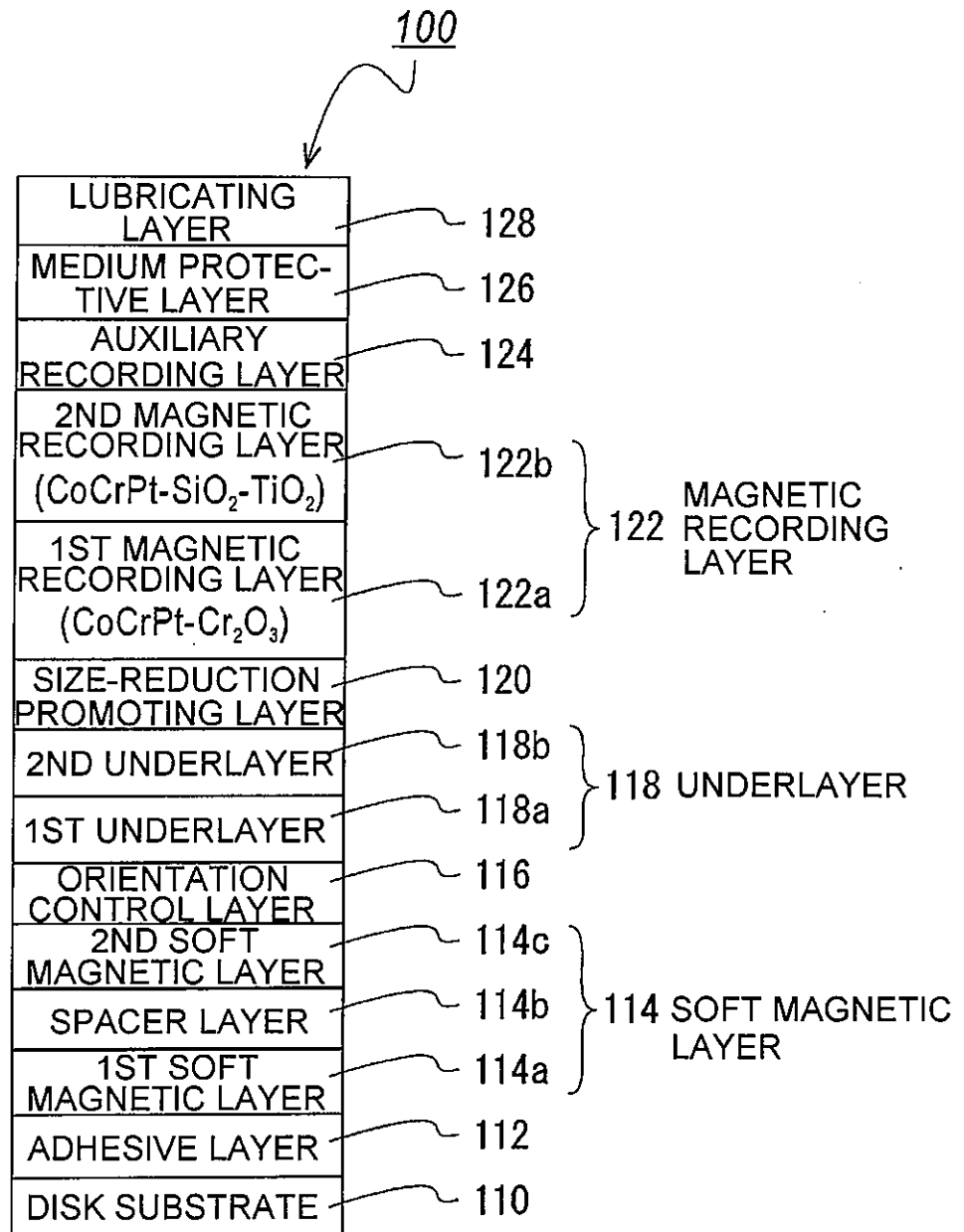


FIG. 2

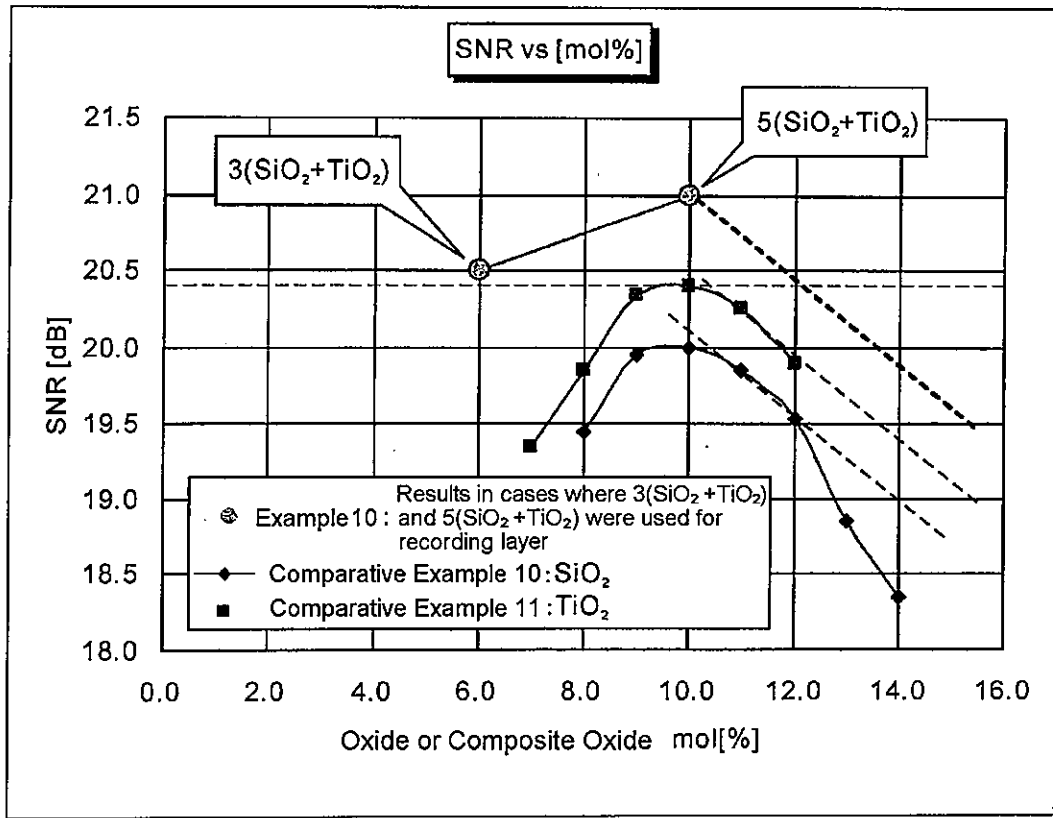


FIG. 3

	Total Amount of Si + Ti (mol%)	Hc [Oe]	SN [dB]	Summarized Evaluation
Comparative Example 12	5	3800	19.6	X
Example 11	6	4630	20.2	○
Example 12	8	4980	20.8	○
Example 13	10	5030	21.3	○○○
Example 14	11	4870	21	○○
Example 15	12	4380	20.9	○
Comparative Example 13	13	3850	20.6	X
Comparative Example 14	14	3320	20.2	X
Comparative Example 15	15	2910	20.1	X

Requirements	4000 [Oe] or more	
--------------	----------------------	--

FIG. 4

	Hc	KuV/KT
CoCrPt-TiO ₂	4982	142
CoCrPt-SiO ₂ -TiO ₂	5013	105

FIG. 5

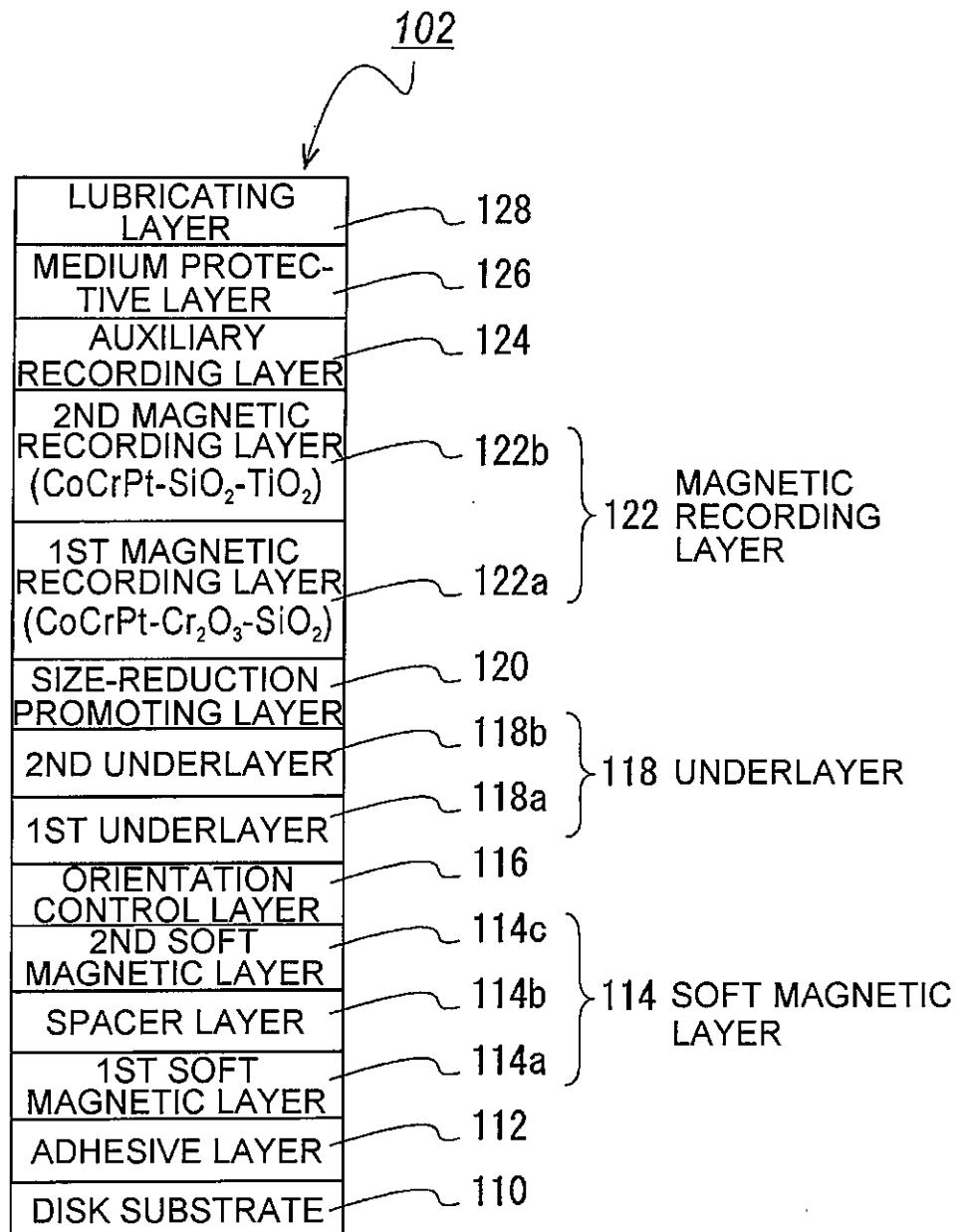


FIG. 6

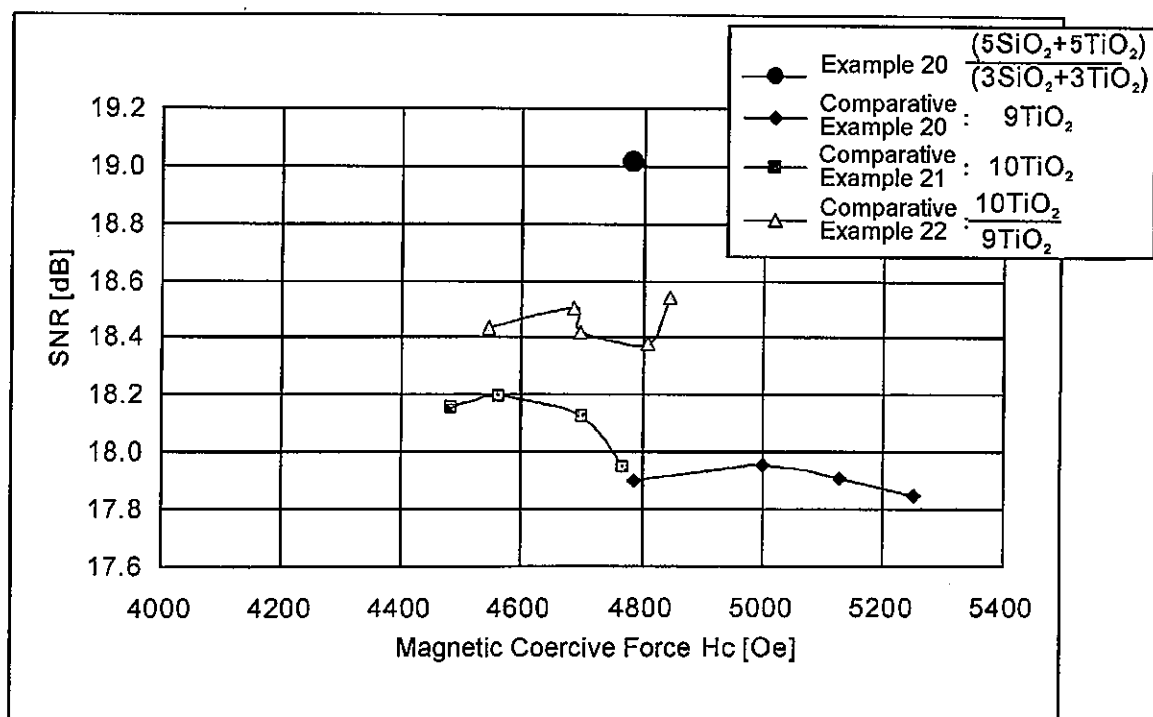


FIG. 7

	B[mol%] A[mol%]	Hc [Oe]	SNR[dB]	Summa- rized Evaluation
Comparative Example 23	6 6	3380	16.8	×
Example 21	10 6	4890	19	○
Example 22	12 6	4340	18.3	○
Comparative Example 24	6 10	3150	17	×
Comparative Example 25	10 10	3830	17.3	×
Example 23	12 10	3220	16.9	×
Comparative Example 26	6 12	2860	16.7	×
Comparative Example 27	10 12	3530	17.2	×
Comparative Example 28	12 12	3130	16.5	×

FIG. 8

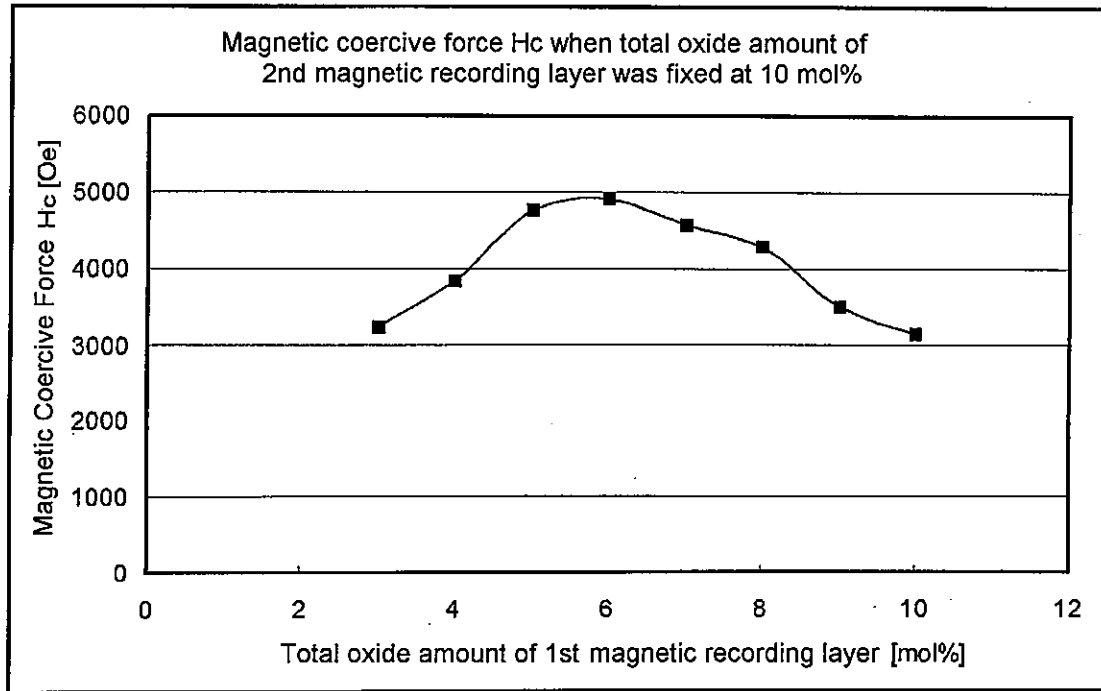


FIG. 9

	Film Arrangement of Recording Layers	Hc	SNm	OW	Summarized Evaluation		
Example 24	<table><tr><td>Si+Ti</td></tr><tr><td>Cr</td></tr></table>	Si+Ti	Cr	4967	20.2	-31.2	○
Si+Ti							
Cr							
Example 25	<table><tr><td>Si+Ti</td></tr><tr><td>Cr+Si</td></tr></table>	Si+Ti	Cr+Si	5038	21.3	-31.6	○○
Si+Ti							
Cr+Si							
Example 26	<table><tr><td>Si+Ti</td></tr><tr><td>Si+Ti</td></tr></table>	Si+Ti	Si+Ti	4867	21.4	-33.7	○○
Si+Ti							
Si+Ti							
Example 27	<table><tr><td>Si+Ti</td></tr><tr><td>Cr+Ti</td></tr></table>	Si+Ti	Cr+Ti	5128	21.6	-30.2	○○
Si+Ti							
Cr+Ti							
Comparative Example 29	<table><tr><td>Si+Ti</td></tr></table>	Si+Ti	4687	19.8	-38.7	△	
Si+Ti							
Comparative Example 30	<table><tr><td>Y+Si</td></tr></table>	Y+Si	<table><tr><td>3861</td></tr></table>	3861	19.4	-48.3	X
Y+Si							
3861							

Requirements	4000[Oe] or more		-30[dB] or less
--------------	---------------------	--	--------------------

FIG. 10

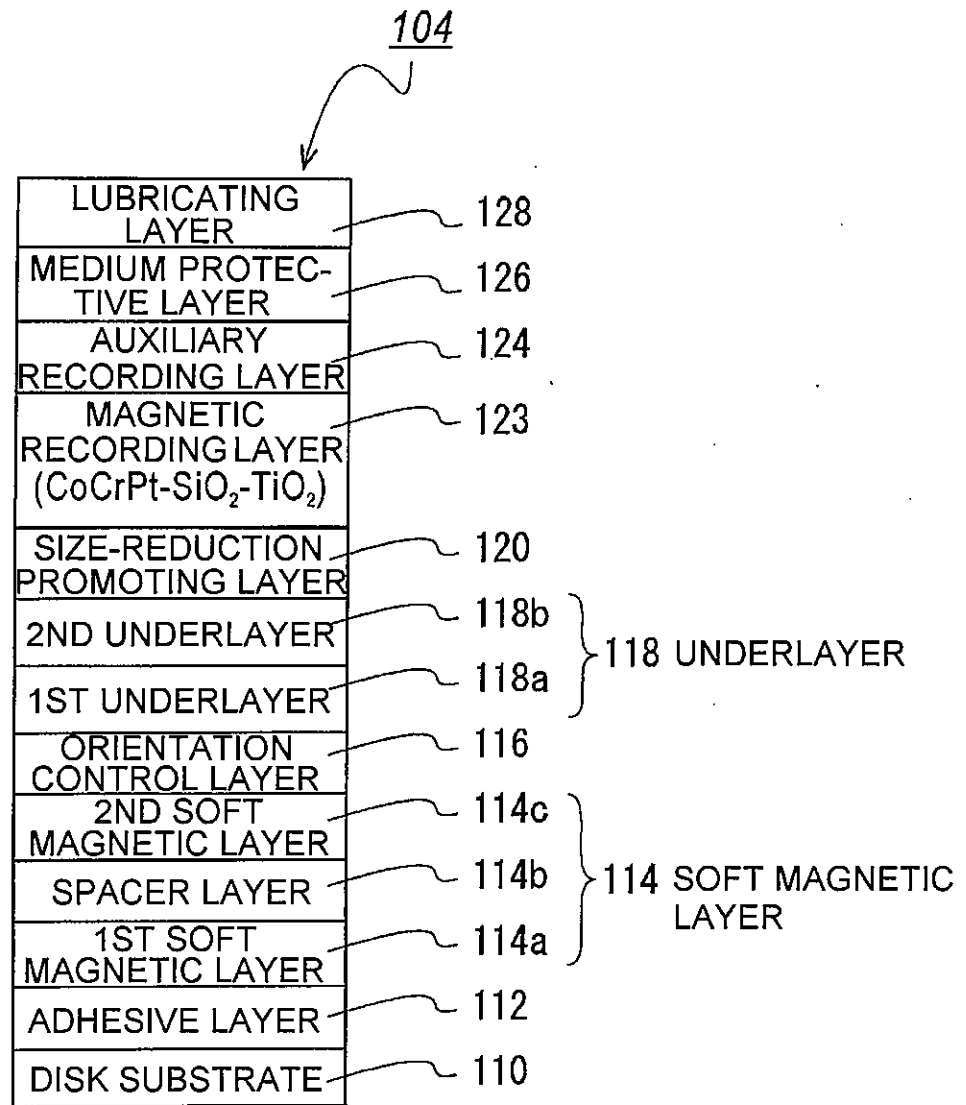
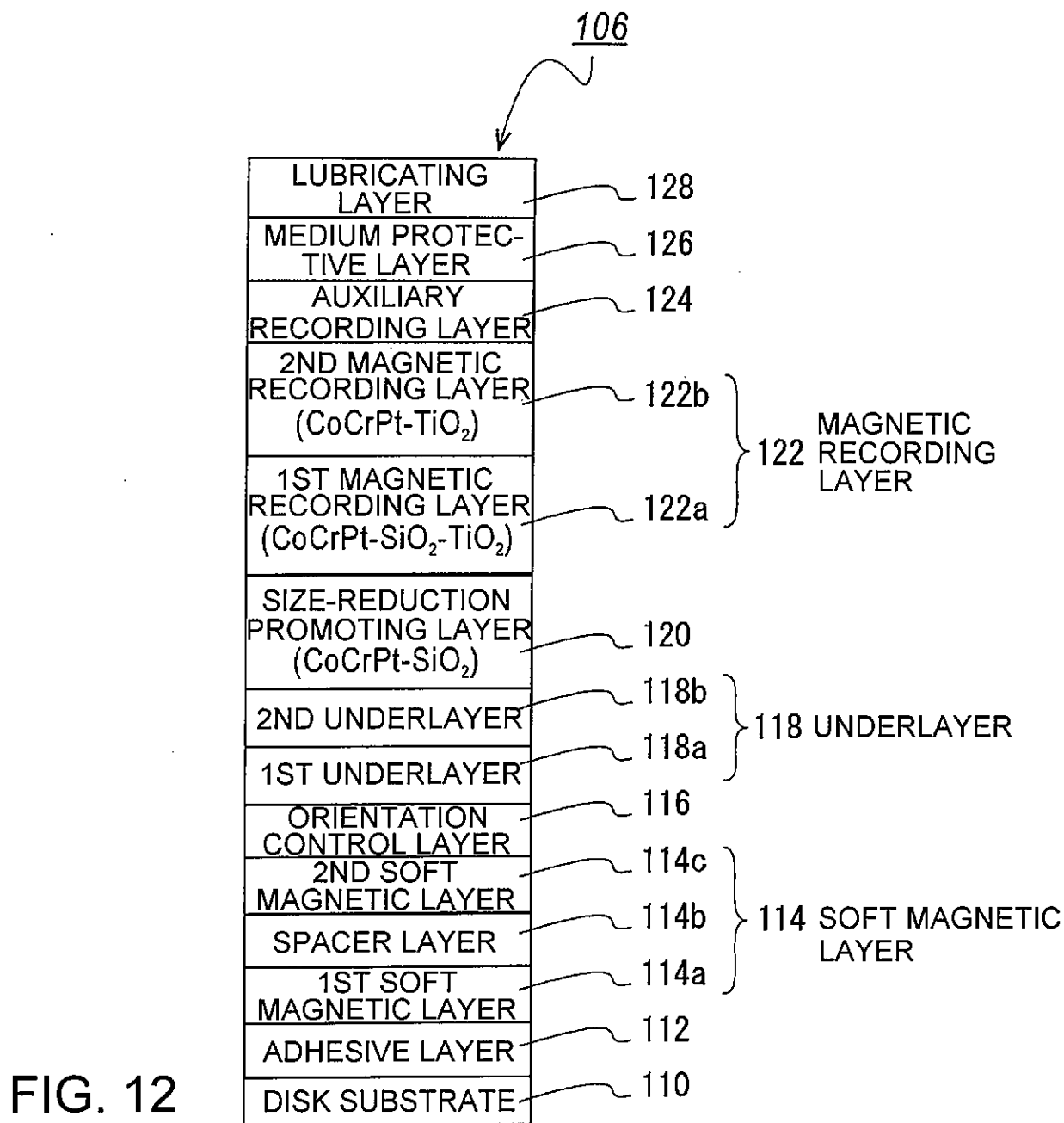


FIG. 11



	Composition (mol%)	Composition (at%)				
		Co	Cr	Pt	SiO ₂	TiO ₂
2ND MAGNETIC RECORDING LAYER	Co ₇₁ Cr ₁₃ Pt ₁₆ -10TiO ₂	53	10	12		8
1ST MAGNETIC RECORDING LAYER	Co ₇₁ Cr ₁₃ Pt ₁₆ -5(SiO ₂ + TiO ₂)	53	10	12	4	4
SIZE-REDUCTION PROMOTING LAYER	Co ₆₀ Cr ₄₀ - 12SiO ₂	43	28		10	

FIG. 13

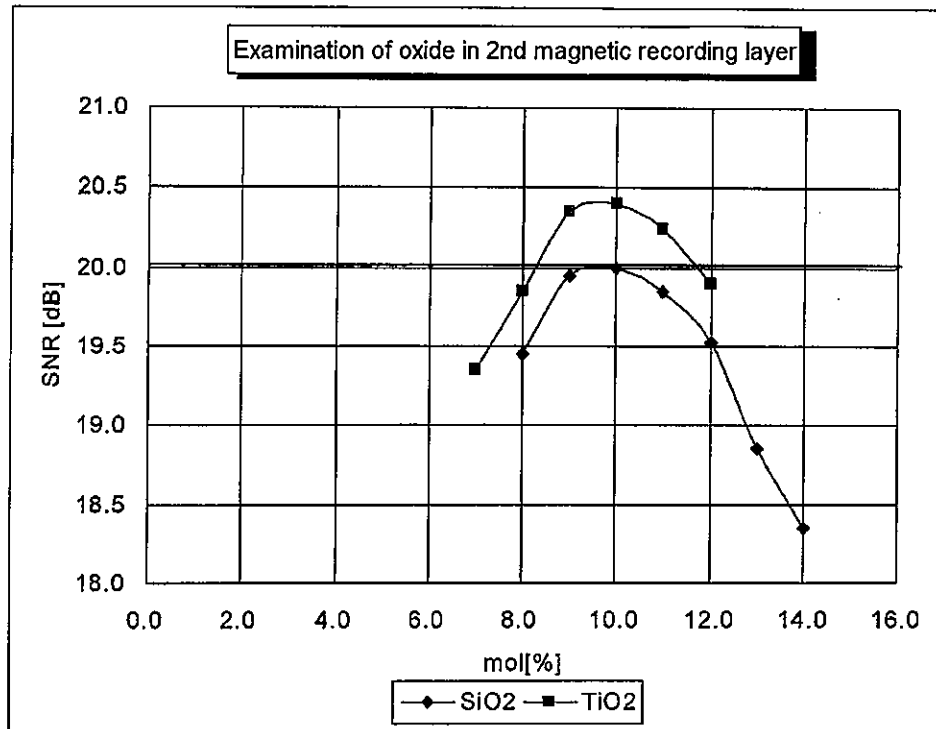
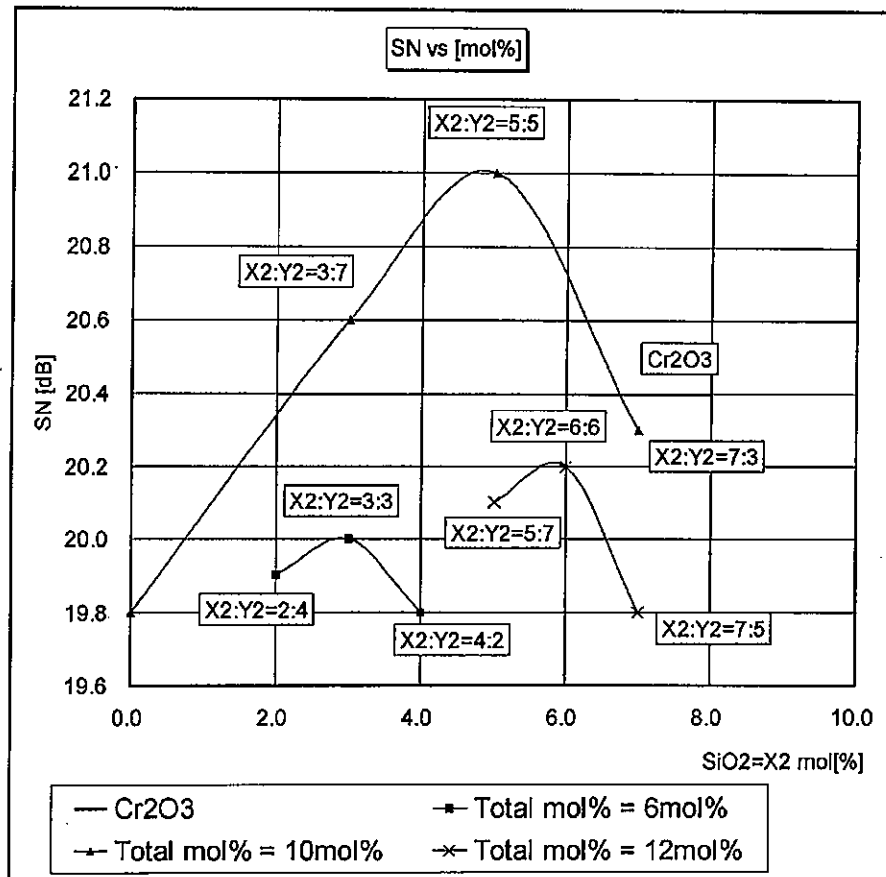


FIG. 14



	Total Oxide Amount (mol %)
Example 40	6
Example 41	10
Example 42	12
Comparative Example 40	0% (CoCrPt-Cr ₂ O ₃)

FIG. 15

	Example 43	Example 44	Example 45	Example 46	Compa- rative- Example 41	Compa- rative- Example 42	Compa- rative- Example 43	Compa- rative- Example 44	Require- ments
Oxide in 2nd Magnetic Recording Layer Y(+ α)	Si	SiTi	SiTi	SiTi	Si	SiTi	Ti	Ti	
Oxide in 1st Magnetic Recording Layer X+Y	SiCr	SiCr	SiTi	SiCr	SiTi	Cr	Cr	Cr	
Oxide in Size- Reduction Promoting Layer X	Cr	Si	Si	Cr	Cr	Si	Si	Ta ₂ O ₅	
Magnetic Coer- cive Force H _c [Oe]	5100	5040	4867	4910	4830	4970	4680	4830	4000[Oe] or more
SNR [dB]	21.0	21.3	21.4	20.9	20.3	20.4	19.8	20.1	-30[dB] or more
Evaluation	○	◎	◎	○	△	△	△	△	

FIG. 16