

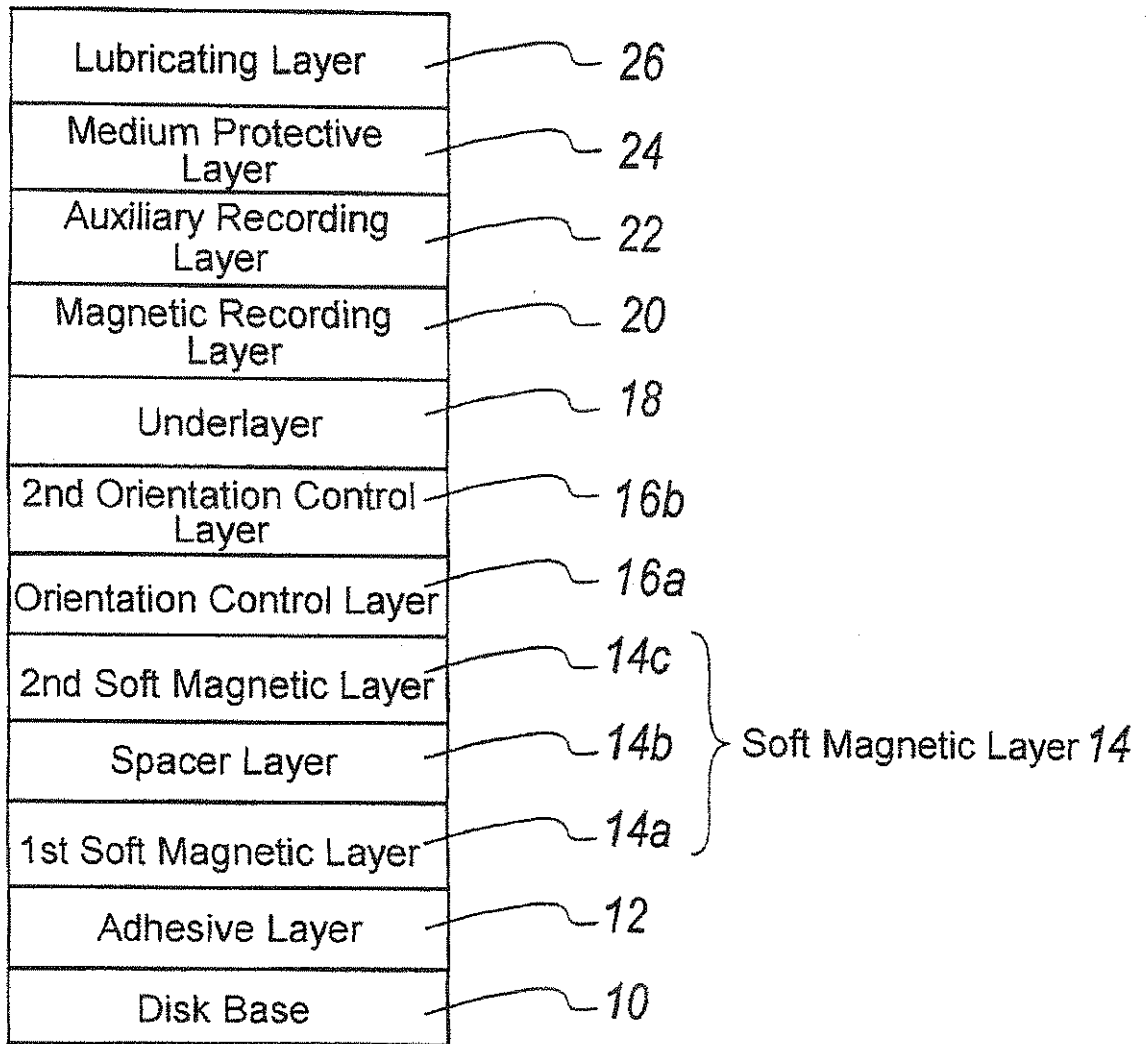
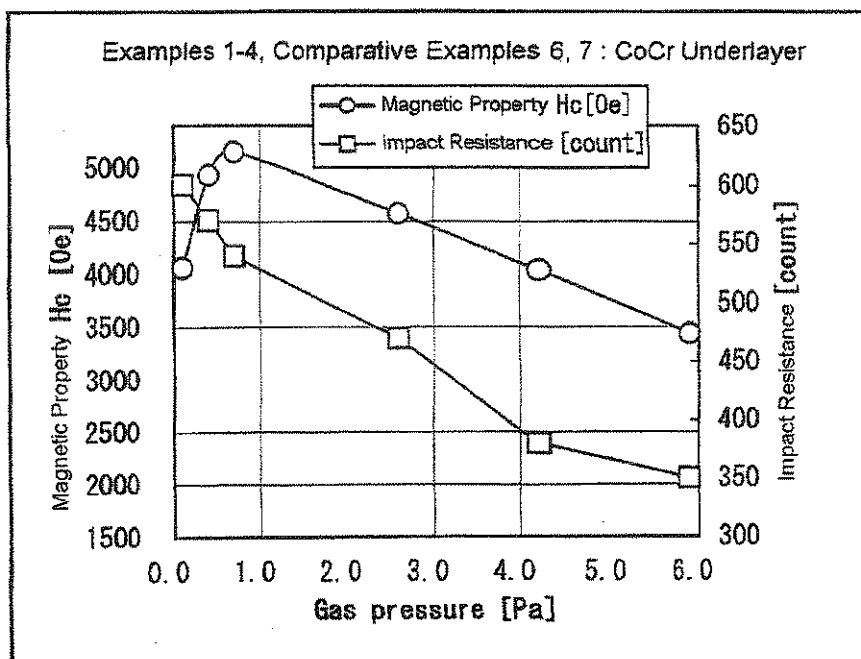


FIG. 1

	Composition			Gas Pressure (Pascal)			Magnetic Property	Impact Resistance	Evaluation
	Orientation Control Layer	2nd Orientation Control Layer	Underlayer	Orientation Control Layer	2nd Orientation Control Layer	Under-layer	Hc [Oe]	Pin On pass count	
	fcc	Amorphous	hcp	fcc	Amorphous	hcp			
Comparative Example 1	NIW10	-	Ru	0.6	-	0.5	2273	550	×
Comparative Example 2	↑	-	Ru	↑	-	1.5	2911	500	×
Comparative Example 3	↑	-	Ru	↑	-	3.0	3685	450	×
Comparative Example 4	↑	-	Ru	↑	-	4.8	4315	390	×
Comparative Example 5	↑	-	Ru	↑	-	6.0	4500	350	×
Example 1	Ti	Carbon	CoCr40	0.6	0.6	0.1	4063	600	○
Example 2	↑	↑	↑	↑	0.6	0.4	4938	570	○
Example 3	↑	↑	↑	↑	0.6	0.7	5154	540	○
Example 4	↑	↑	↑	↑	0.6	2.6	4571	470	○
Comparative Example 6	↑	↑	↑	↑	0.6	4.2	4038	380	×
Comparative Example 7	↑	↑	↑	↑	0.6	5.9	3442	350	×
Example 5	↑	-	↑	↑	-	0.4	4282	560	○
Example 6	NIW10	-	↑	0.6	-	1.0	4642	520	○
Example 7	↑	Carbon	↑	0.6	-	1.0	3800	510	○

FIG. 2

(a)



(b)

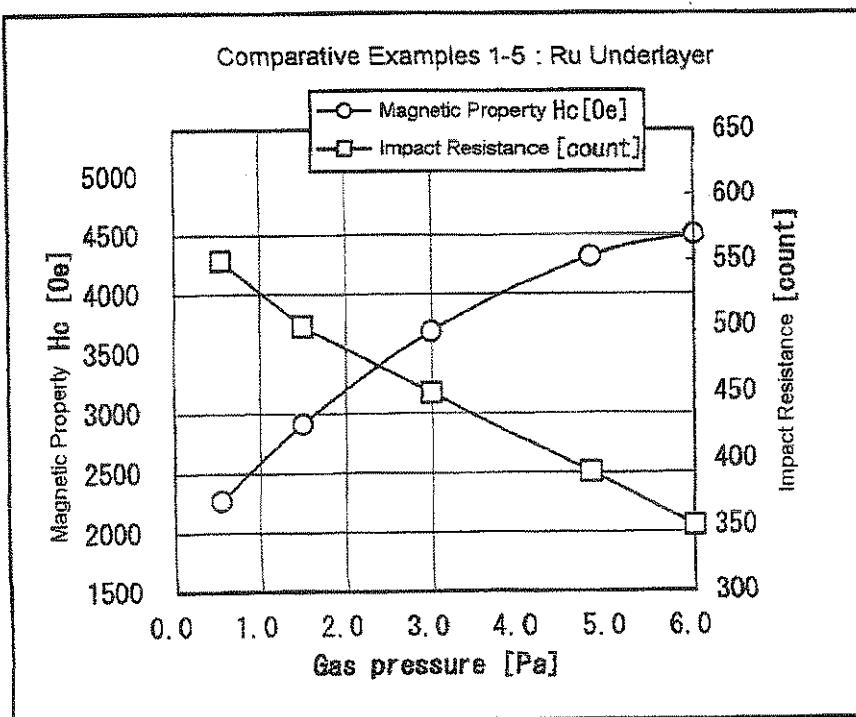


FIG. 3

	Composition			Gas Pressure (Pascal)			Magnetic Property	Impact Resistance	Evaluation
	Orientation Control Layer	2nd Orientation Control Layer	Underlayer	Orientation Control Layer	2nd Orientation Control Layer	Under-layer	Hc [Oe]	Pin On pass count	
	fcc	Amorphous	hcp	fcc	Amorphous	hcp			
Example 10	NiW10	-	CoCr55	0.6	-	2	4677	480	○
Example 11	↑	-	CoCr40	↑	-	↑	4554	490	○
Comparative Example 8	↑	-	CoCr35	↑	-	↑	1301	470	×
Example 12	NiW10	-	CoCr40Ru10	↑	-	↑	3866	480	○
Example 13	CuW10	-	CoCr40	↑	-	↑	3899	480	○
Example 14	↑	-	CoCr40Ru10	↑	-	↑	3866	480	○

FIG. 4

(a)

Underlayer is Single Layer

	Composition		Gas Pressure (Pascal)		Magnetic Property	Impact Resistance
	Orientation Control Layer	Underlayer	Orientation Control Layer	Underlayer	Hc [Oe]	Pin On pass count
	fcc	hcp	fcc	hcp		
Example 15	NiW10	CoCr40-SiO ₂ (6mol%)	0.6	0.7	5350	530
Example 16	↑	CoCr40-TiO ₂ (6mol%)	↑	↑	5210	540
Example 17	↑	CoCr40-Cr ₂ O ₃ (6mol%)	↑	↑	5200	530

(b)

Underlayer is Two Layers

	Composition			Gas Pressure (Pascal)			Magnetic Property	Impact Resistance
	Orientation Control Layer	1st Underlayer	2nd Underlayer	Orientation Control Layer	1st Underlayer	2nd Underlayer	Hc [Oe]	Pin On pass count
	fcc	hcp	hcp	fcc	hcp	hcp		
Example 18	NiW10	CoCr40	CoCr40-SiO ₂ (6mol%)	0.6	0.7	0.7	5500	530
Example 19	↑	CoCr40	CoCr40-TiO ₂ (6mol%)	↑	↑	↑	5370	540
Example 20	↑	CoCr40	CoCr40-Cr ₂ O ₃ (6mol%)	↑	↑	↑	5300	530

(c)

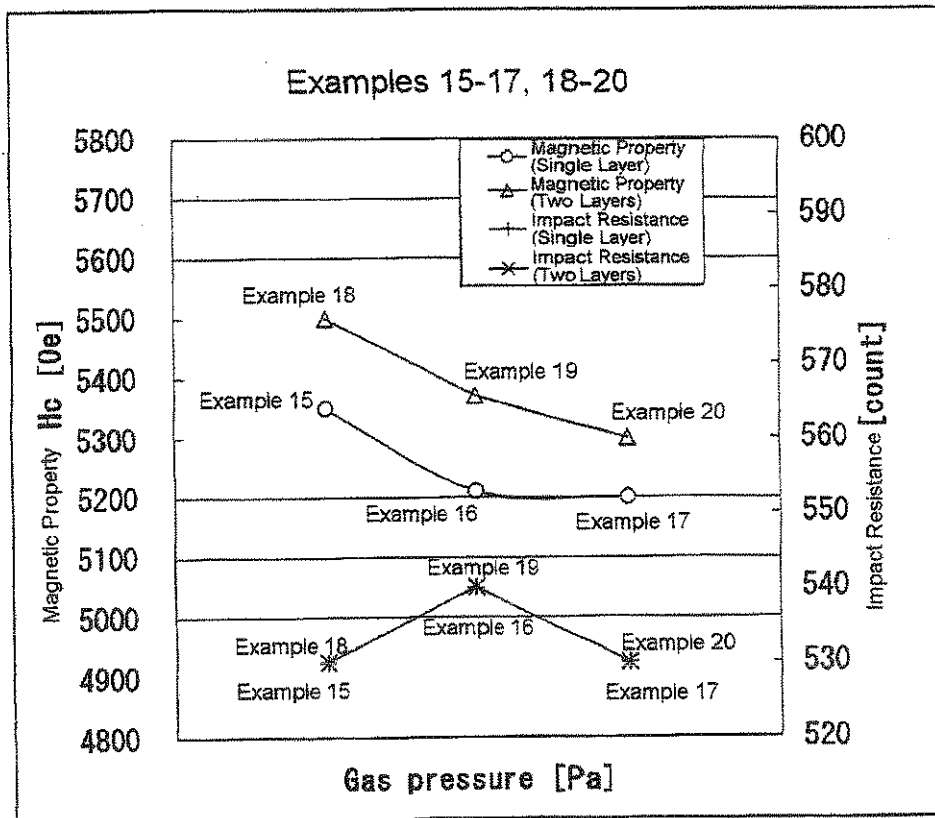


FIG. 5