

FIG. 1 (PRIOR ART)

LUBRICATING LAYER (15)
PROTECTION LAYER (14)
PERPENDICULAR MAGNETIC RECORDING LAYER (13)
PERPENDICULAR ORIENTATION UNDERLAYER (12)
SUBSTRATE (11)

FIG. 2 (PRIOR ART)

LUBRICATING LAYER (25)
PROTECTION LAYER (24)
PERPENDICULAR MAGNETIC RECORDING LAYER (23)
SOFT MAGNETIC UNDERLAYER (22)
SUBSTRATE (21)

FIG. 3 (PRIOR ART)

LUBRICATING LAYER (226)
PROTECTION LAYER (225)
PERPENDICULAR MAGNETIC RECORDING LAYER (224)
PERPENDICULAR ORIENTATION UNDERLAYER (223)
SOFT MAGNETIC UNDERLAYER (222)
SUBSTRATE (221)

FIG. 4

LUBRICATING LAYER (37)
PROTECTION LAYER (36)
PERPENDICULAR MAGNETIC RECORDING LAYER (35)
THIRD UNDERLAYER (34)
SECOND UNDERLAYER (33)
FIRST UNDERLAYER (32)
SUBSTRATE (31)

FIG. 5

LUBRICATING LAYER (48)
PROTECTION LAYER (47)
PERPENDICULAR MAGNETIC RECORDING LAYER (46)
THIRD UNDERLAYER (45)
SECOND UNDERLAYER (44)
FIRST UNDERLAYER (43)
SOFT MAGNETIC UNDERLAYER (42)
SUBSTRATE (41)

FIG. 6

LUBRICATING LAYER (48)
PROTECTION LAYER (47)
PERPENDICULAR MAGNETIC RECORDING LAYER (46)
THIRD UNDERLAYER (45)
SECOND UNDERLAYER (44)
SOFT MAGNETIC UNDERLAYER (42)
SUBSTRATE (41)

FIG. 7

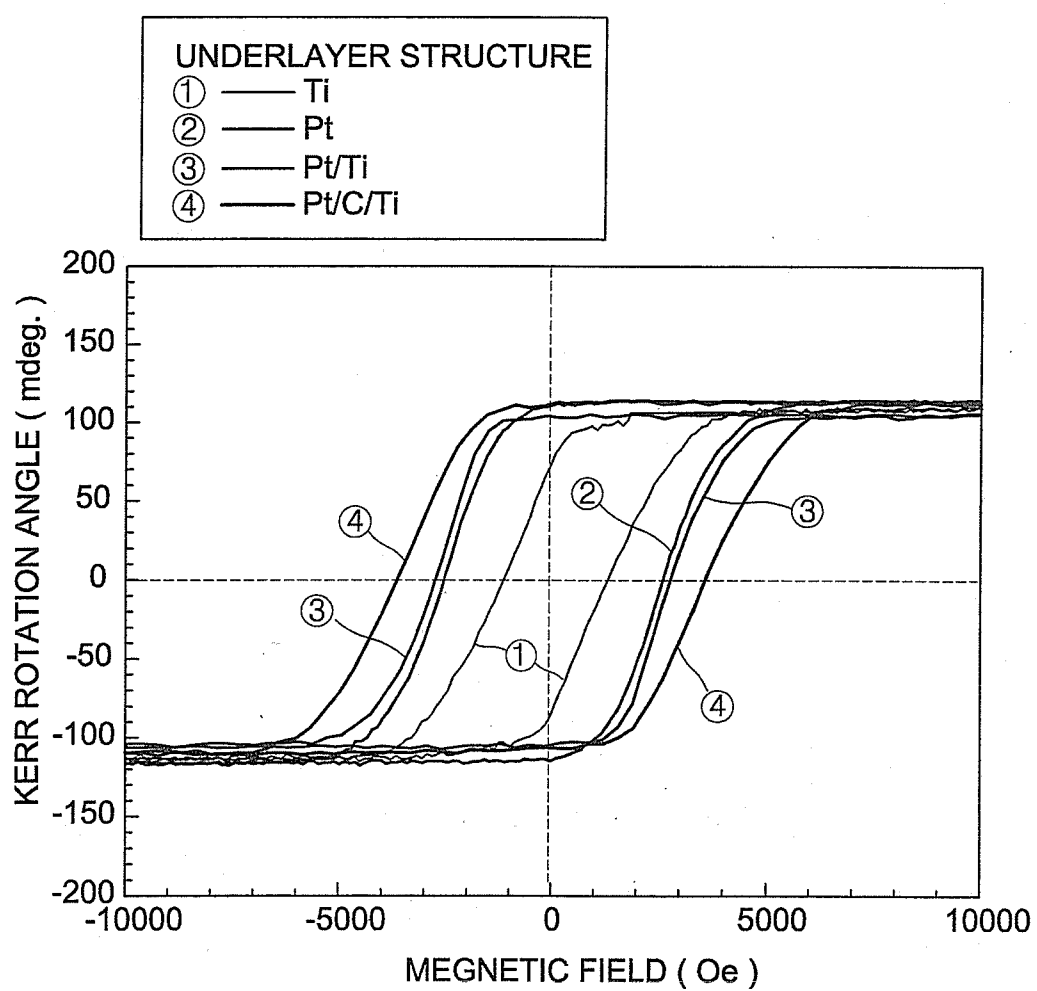


FIG. 8

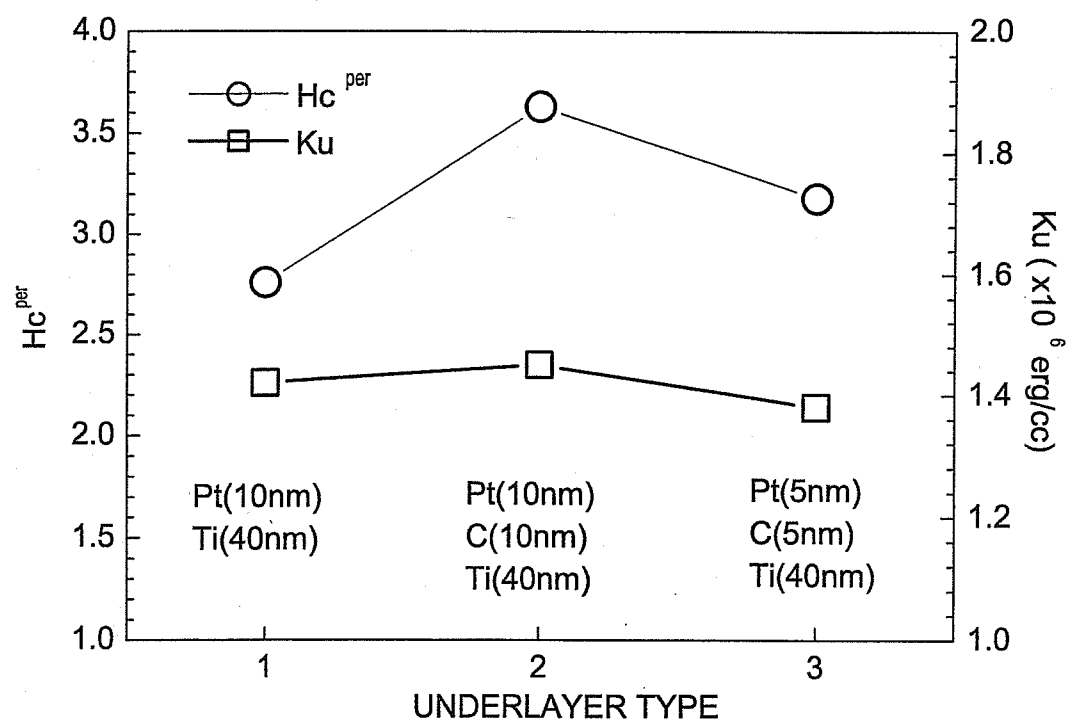


FIG. 9A

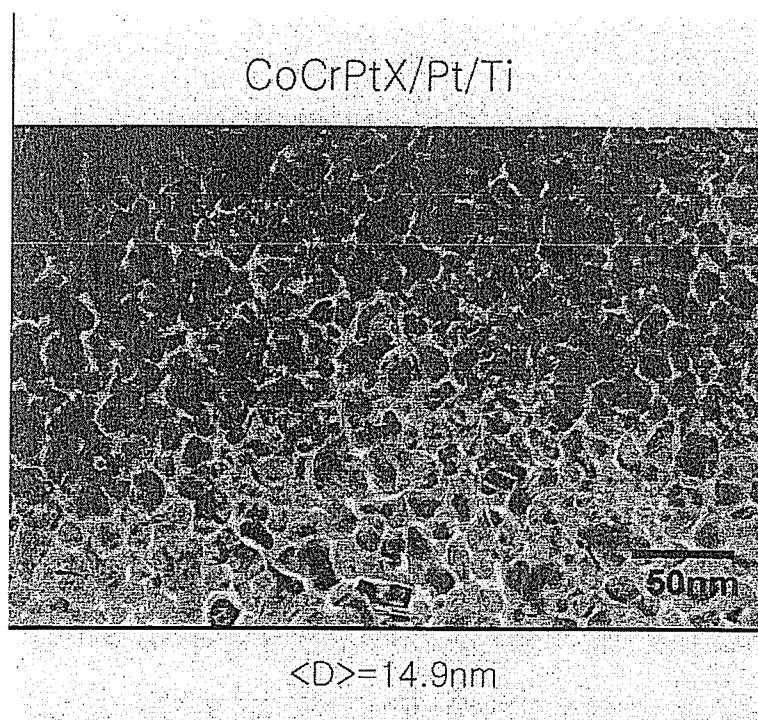


FIG. 9B

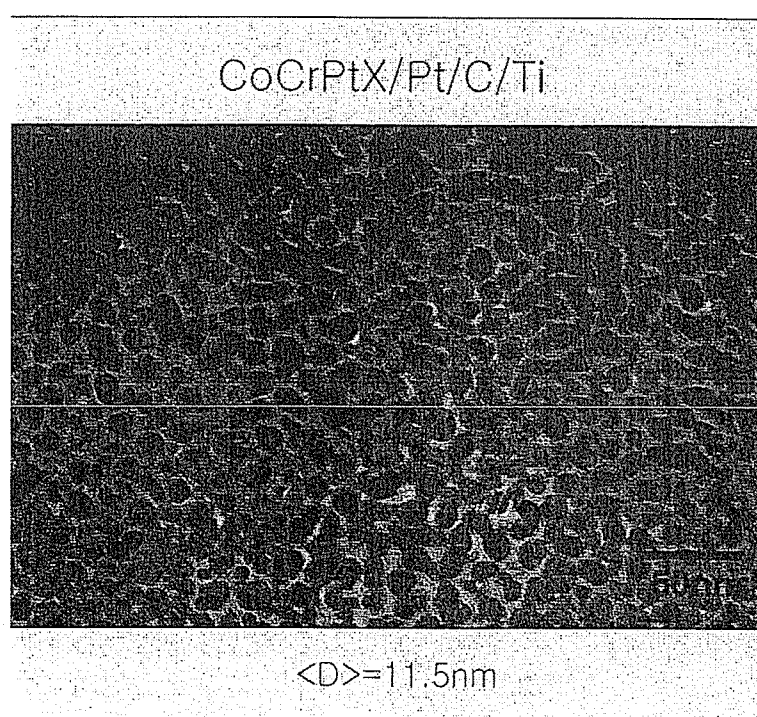


FIG. 10

