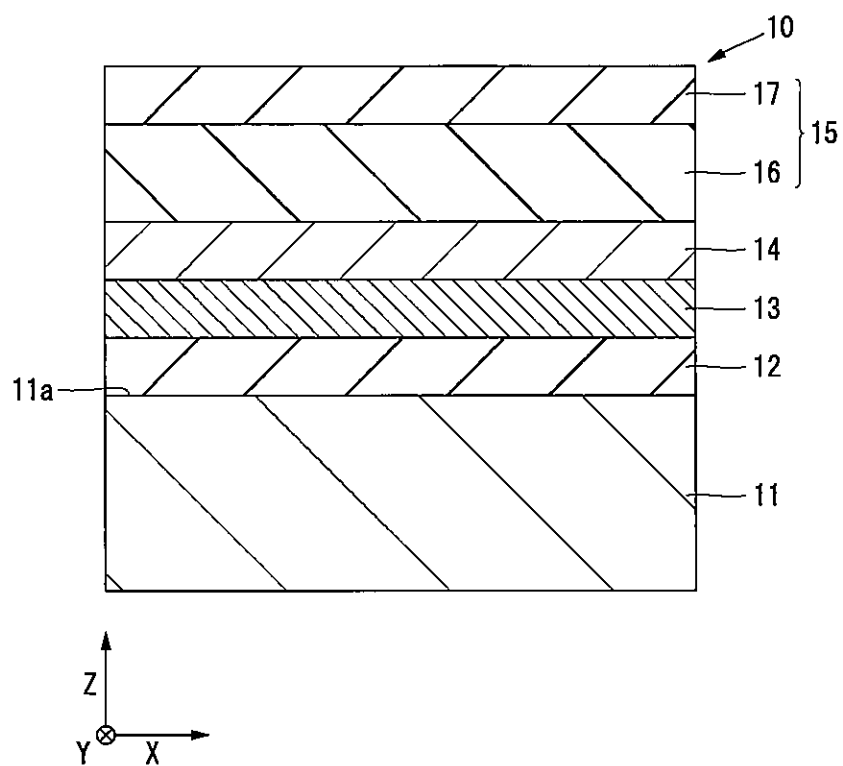


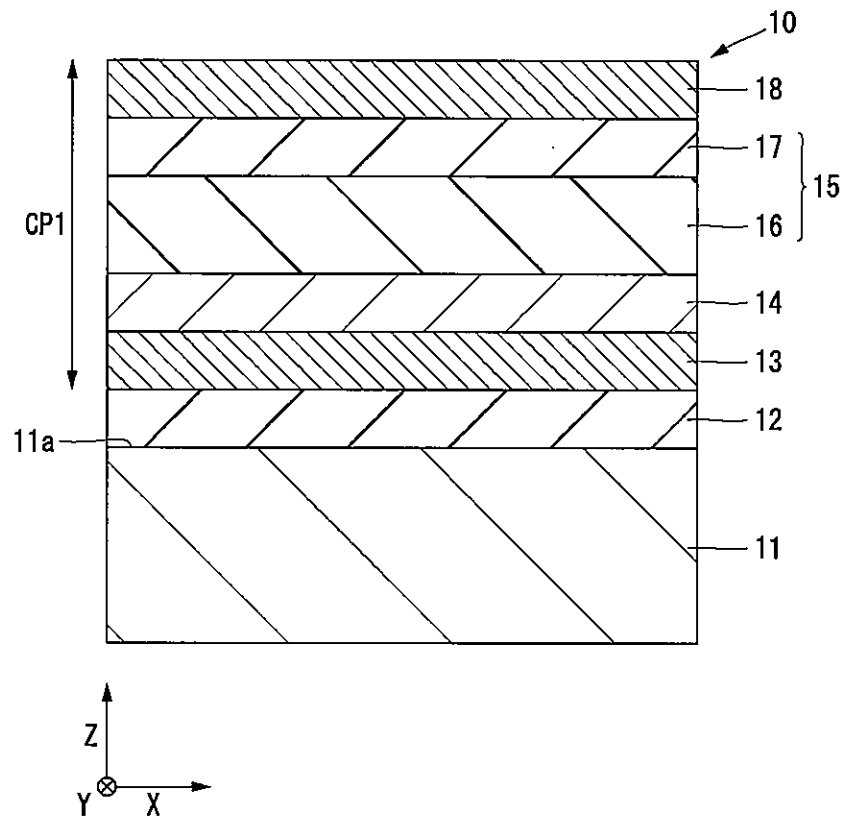
1/24

FIG. 1



2/24

FIG. 2



3/24

FIG. 3

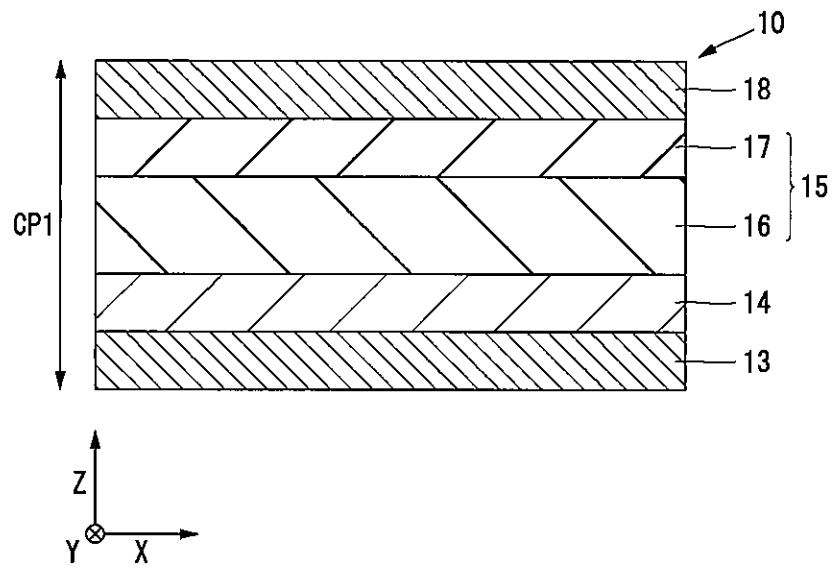
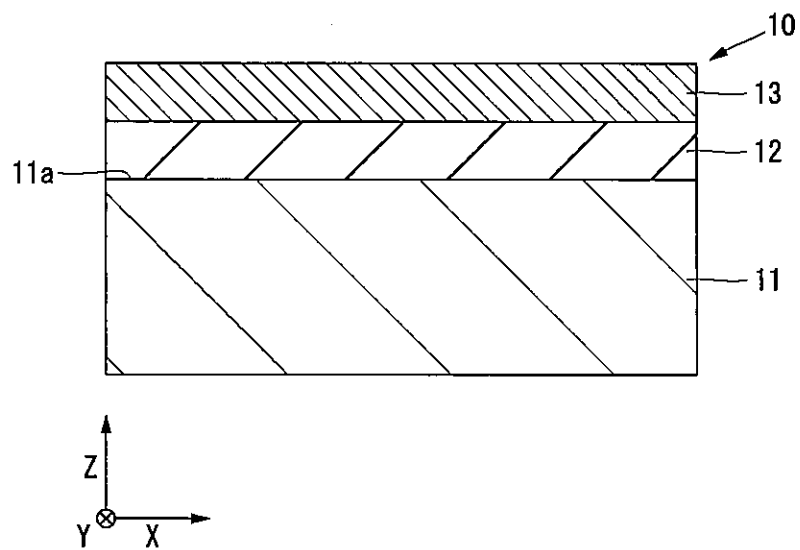
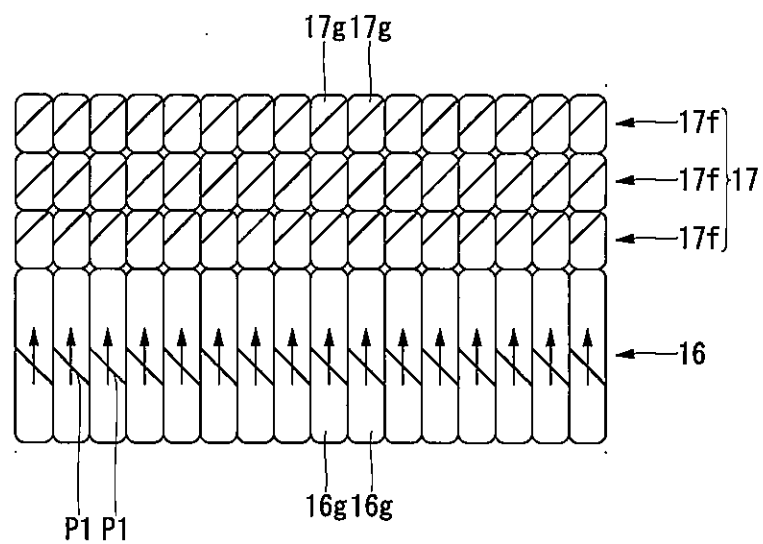


FIG. 4



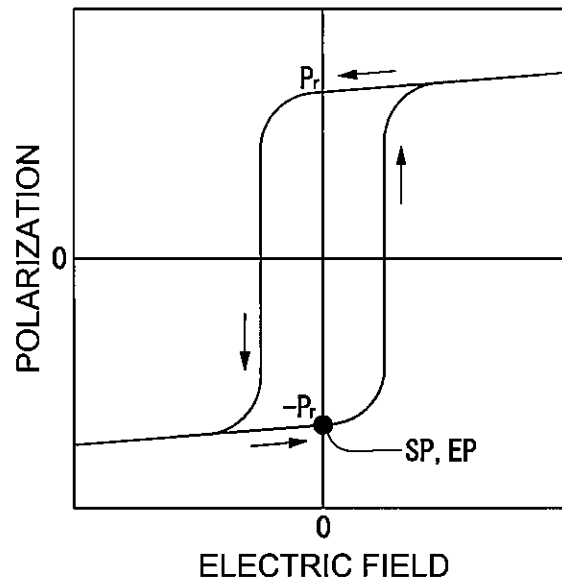
4/24

FIG. 5



5/24

FIG. 6



6/24

FIG. 7

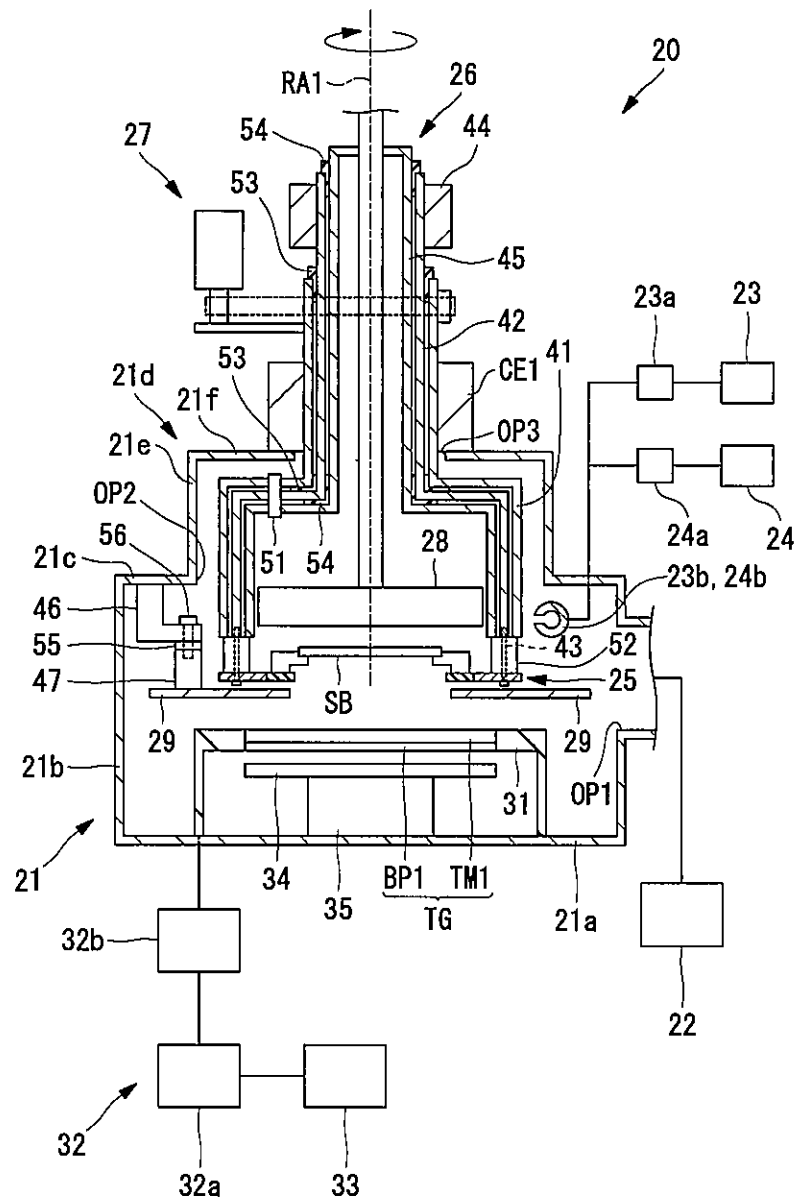
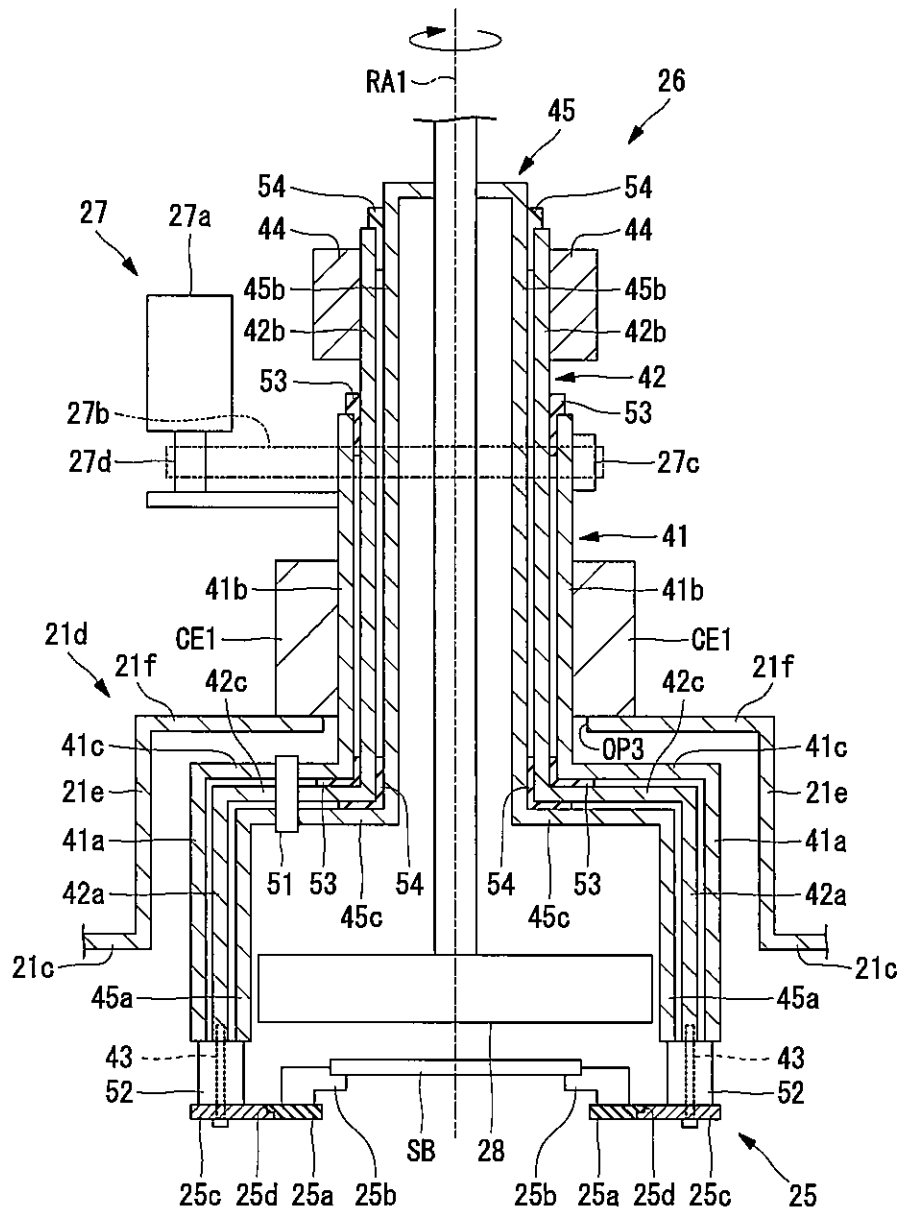
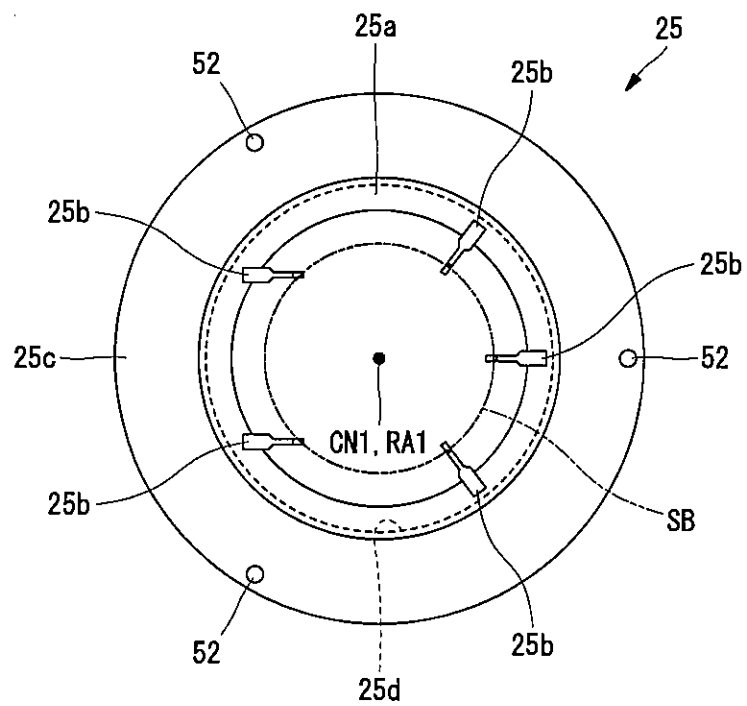


FIG. 8



8/24

FIG. 9



9/24

FIG. 10

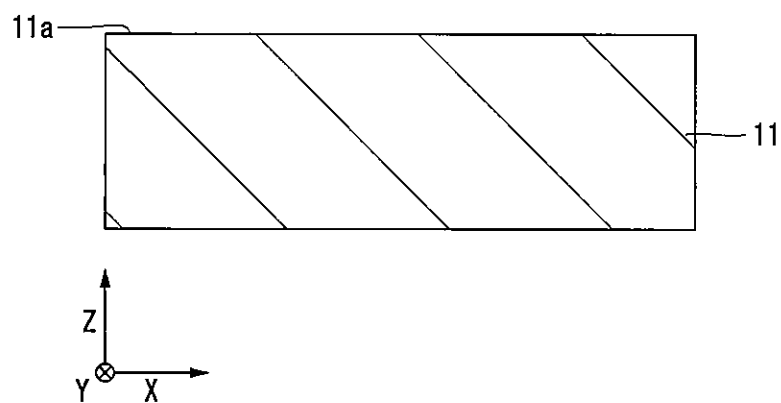
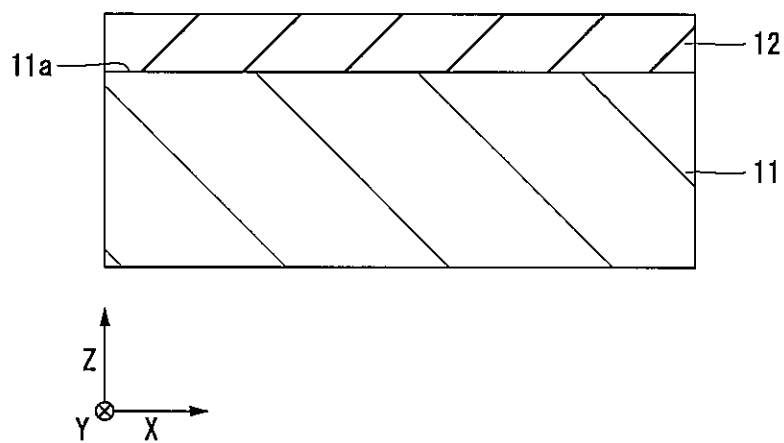
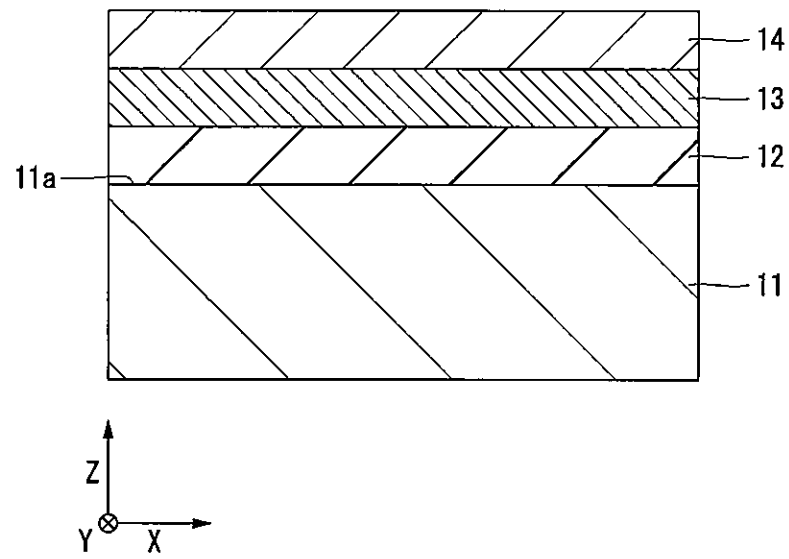


FIG. 11



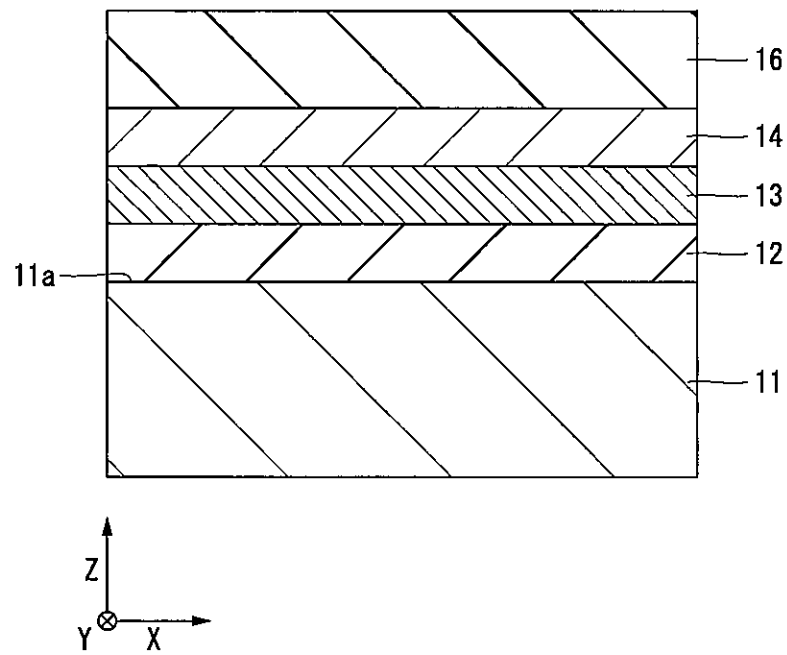
10/24

FIG. 12

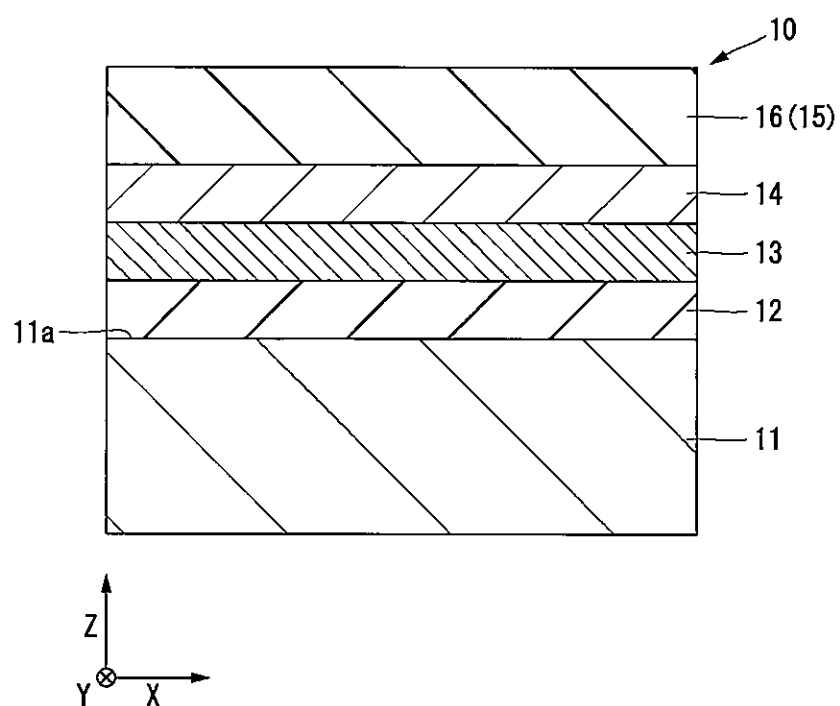


11/24

FIG. 13



12/24
FIG. 14



13/24

FIG. 15

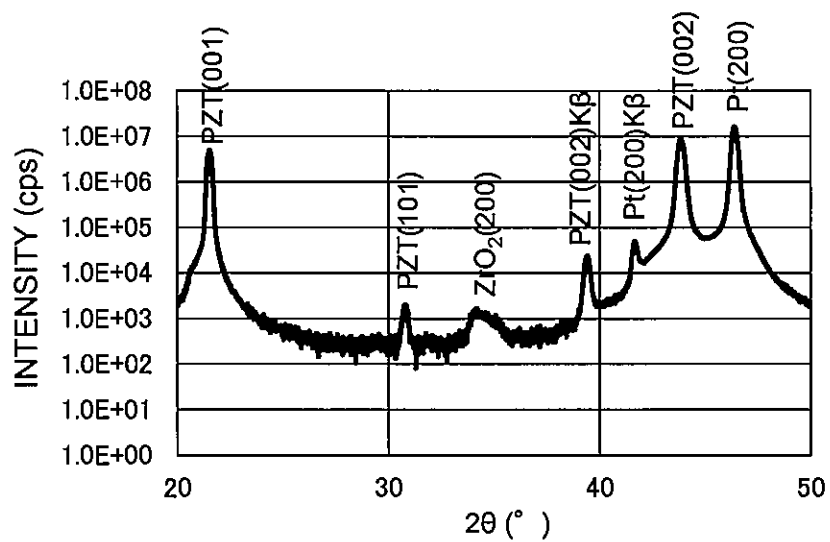
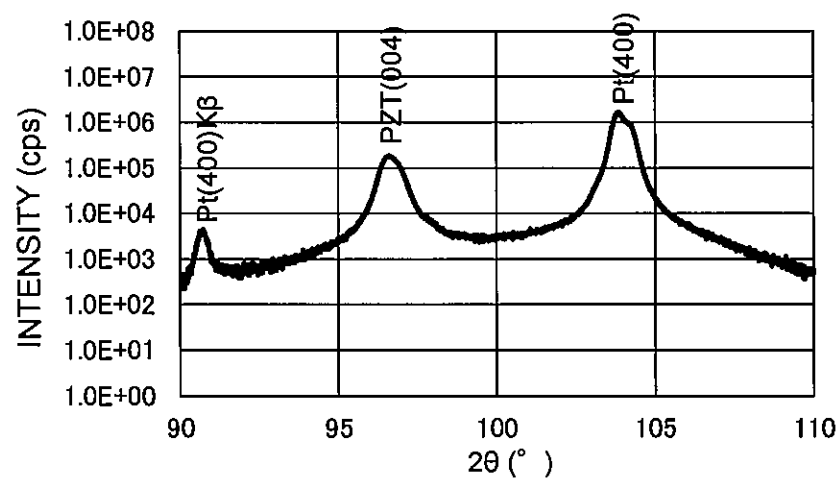


FIG. 16



14/24

FIG. 17

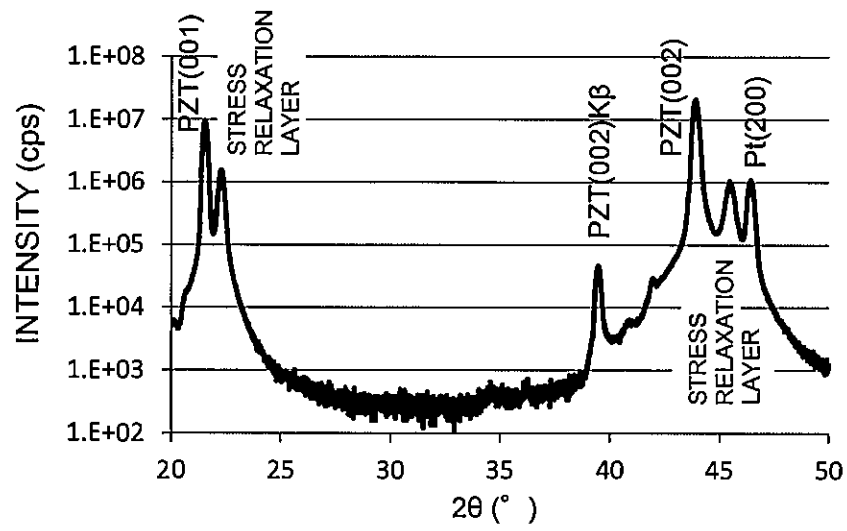
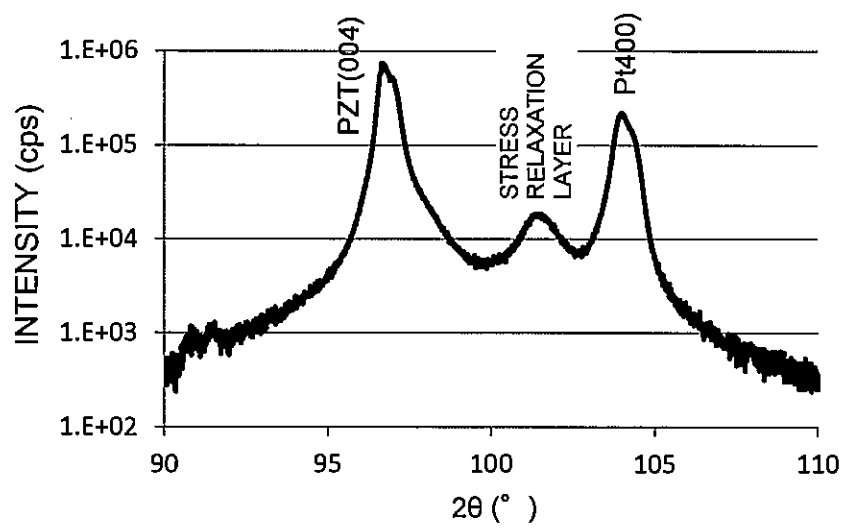


FIG. 18



15/24

FIG. 19

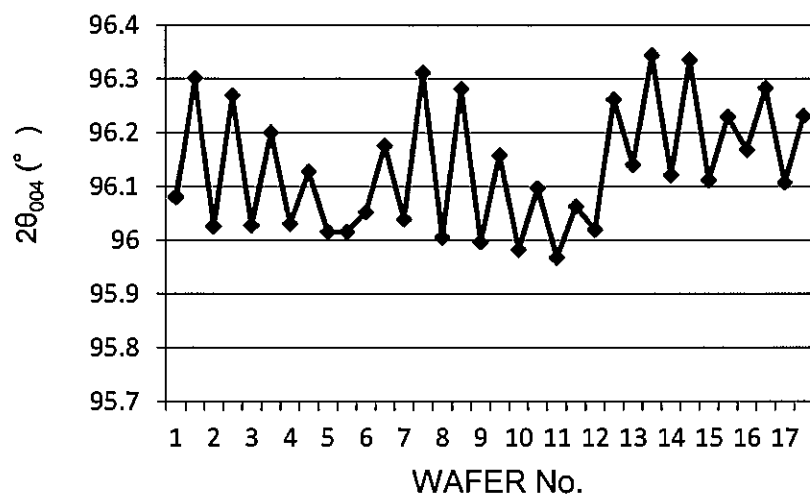
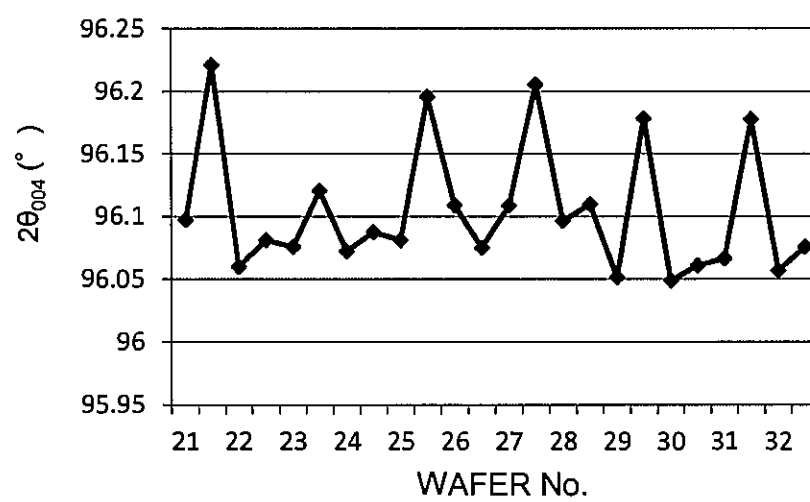


FIG. 20



16/24

FIG. 21

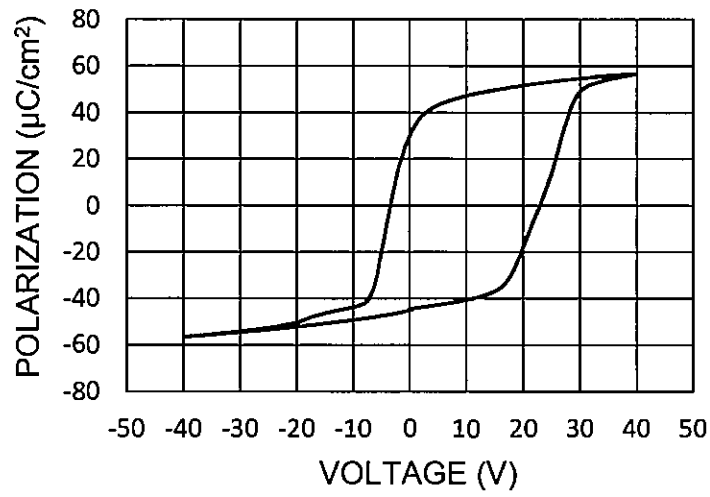
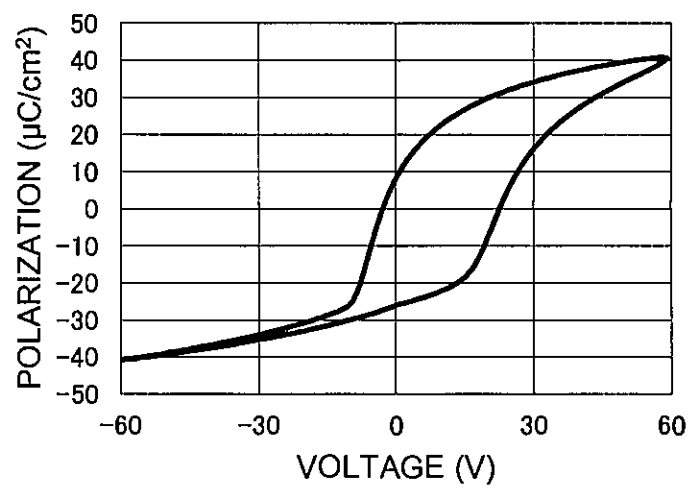


FIG. 22



17/24

FIG. 23

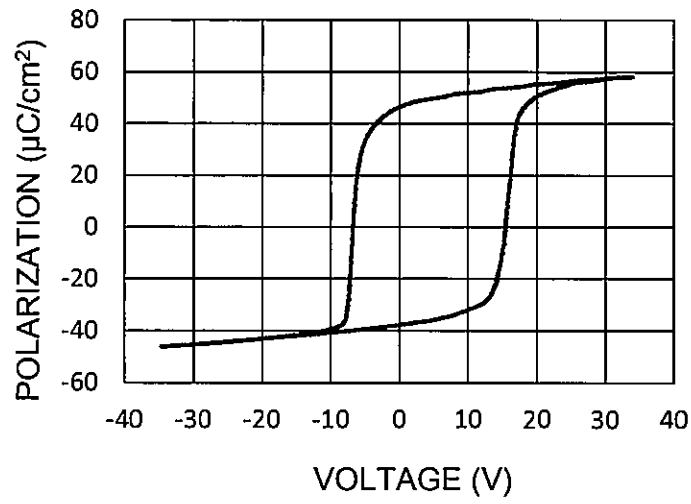
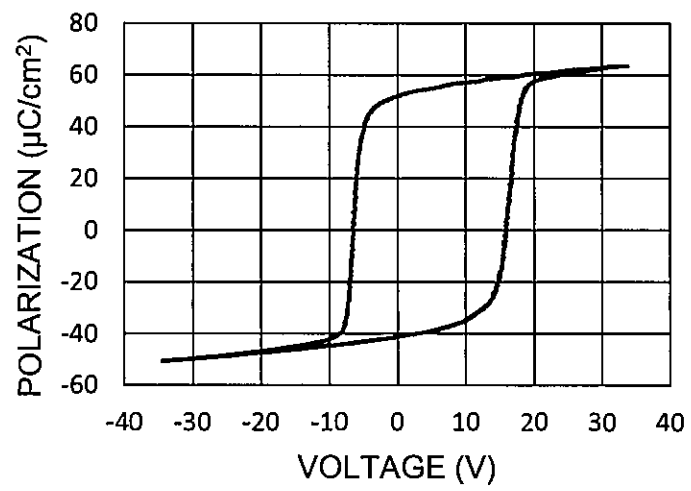


FIG. 24



18/24

FIG. 25

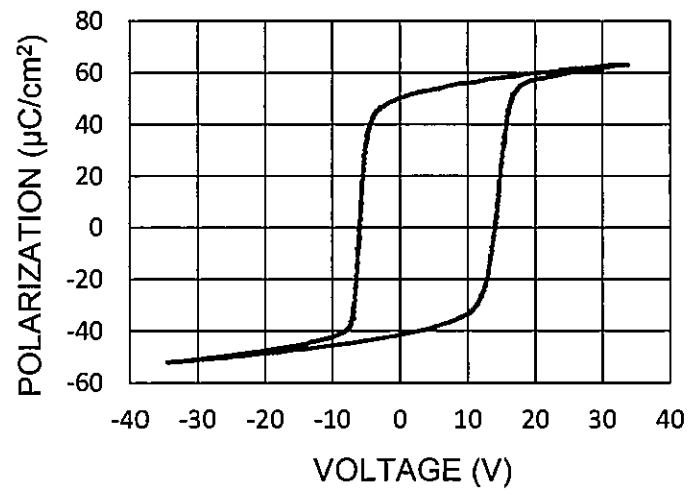
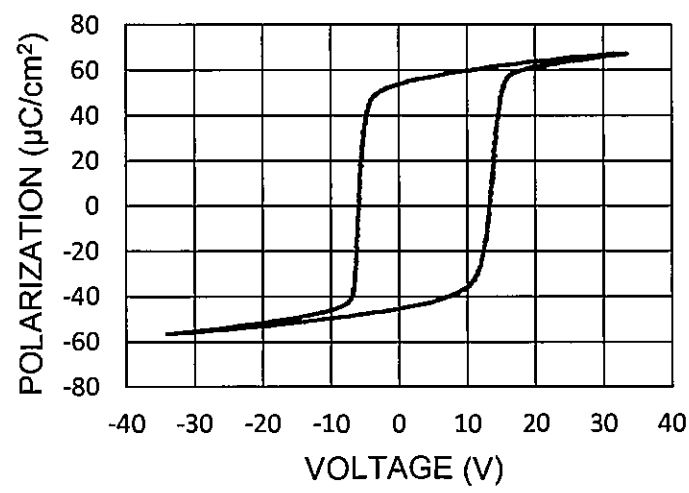


FIG. 26



19/24
FIG. 27

	HIGH-FREQUENCY POWER (W)	FILM DEPOSITION RATE (nm/s)	$2\theta_{004}$ ($^{\circ}$)	RESIDUAL POLARIZATION P_r ($\mu\text{C}/\text{cm}^2$)	RELATIVE PERMITTIVITY ϵ_r (-)	$P_r \cdot \epsilon_r$ ($\mu\text{C}/\text{cm}^2$)	PIEZOELECTRIC CONSTANT d_{31} (pm/V)	CRACK
COMPARATIVE EXAMPLE 1	2750	0.65	97.0	10	800	8000	140	×
COMPARATIVE EXAMPLE 2	2500	0.42	96.8	18	580	10440	178	×
EXAMPLE 1	2250	0.29	96.5	28	450	15750	200	○
EXAMPLE 6	2000	0.22	96.4	39	330	13200	210	○
EXAMPLE 7	1750	0.16	96.1	48	263	12624	220	○
EXAMPLE 8	1500	0.11	95.9	57	216	12312	230	○

20/24

FIG. 28

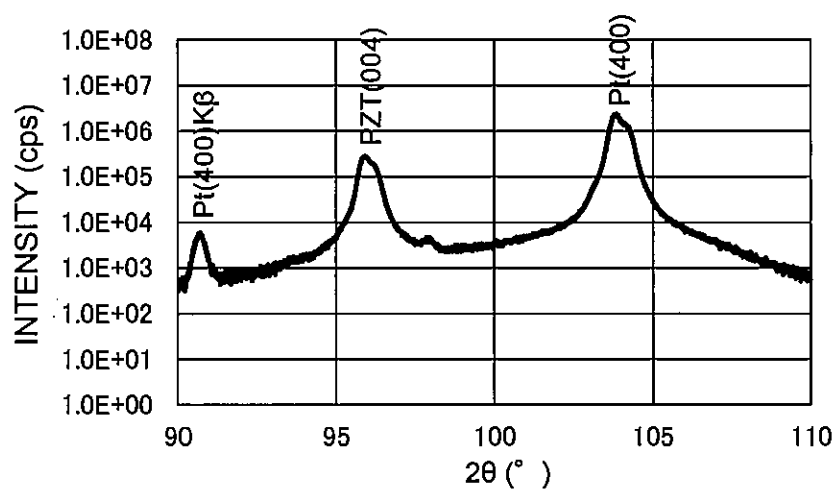
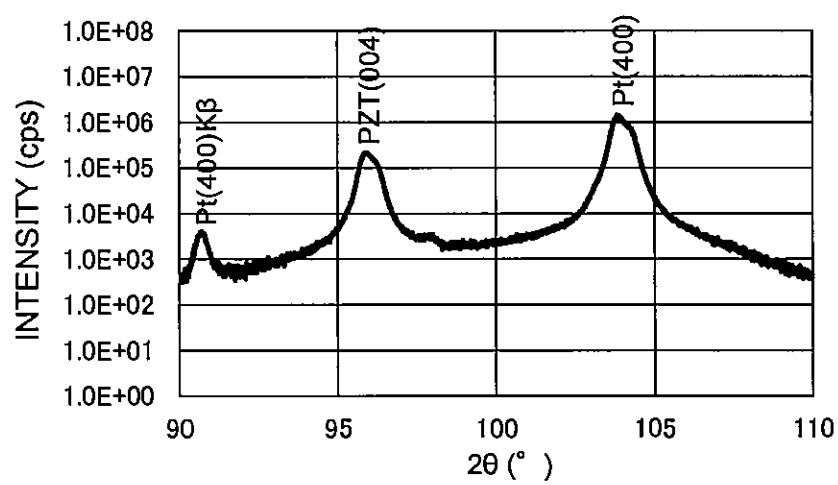
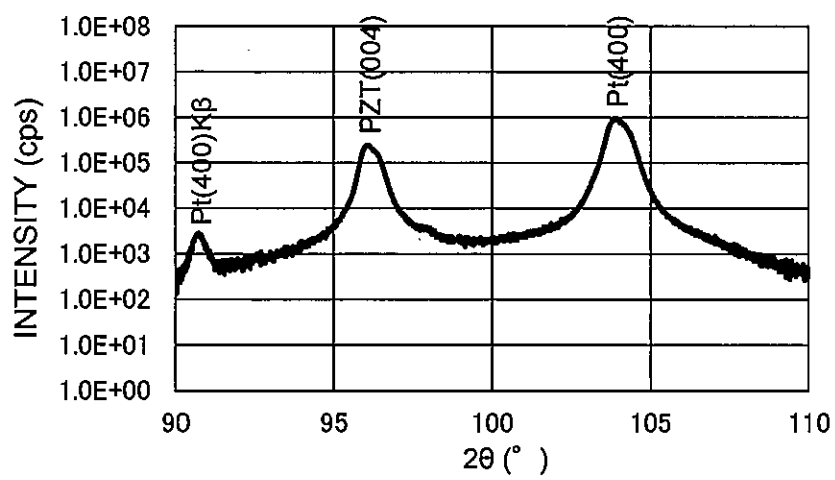


FIG. 29



21/24

FIG. 30



22/24

FIG. 31

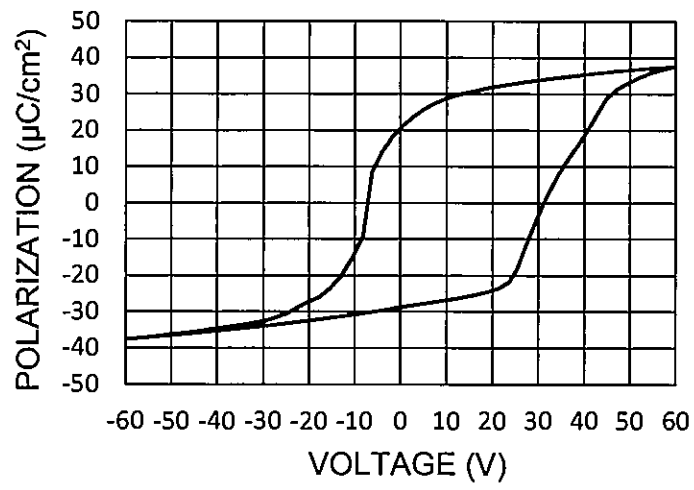
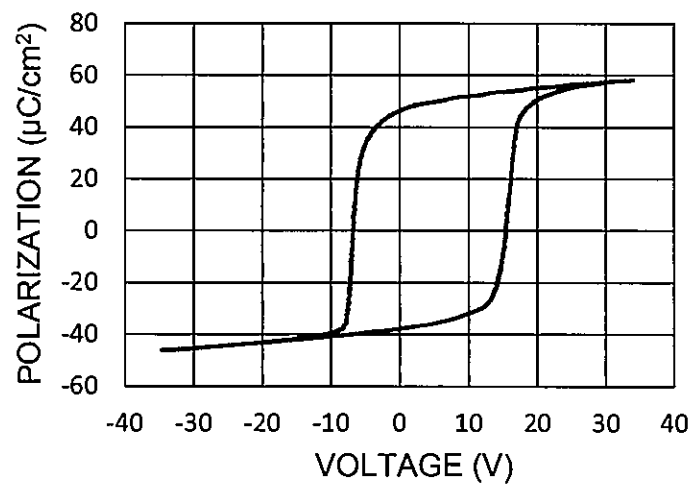


FIG. 32



23/24

FIG. 33

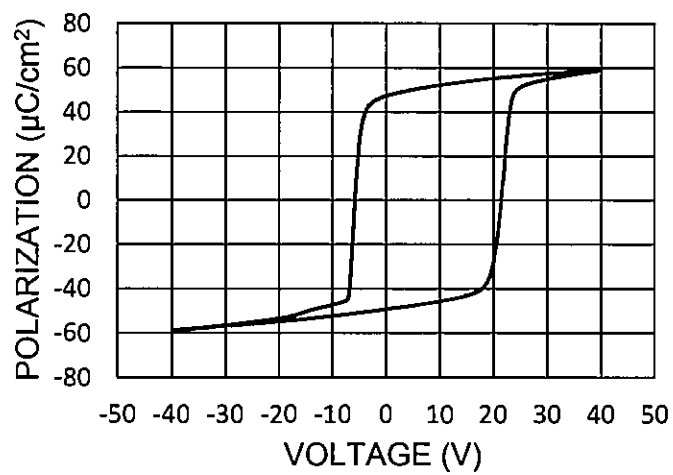
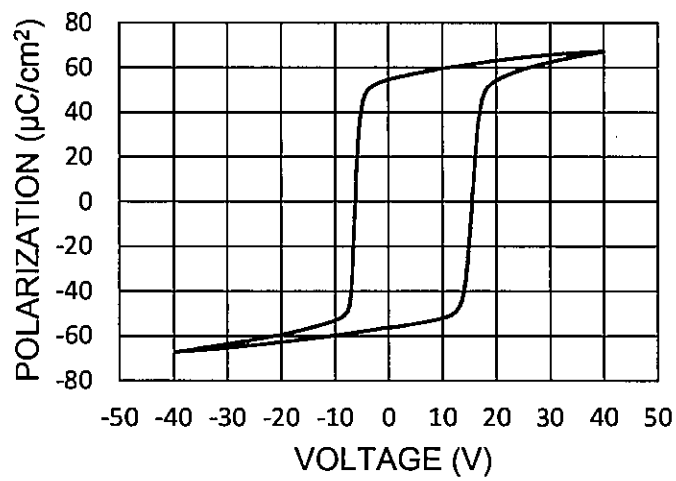


FIG. 34



24/24

FIG. 35

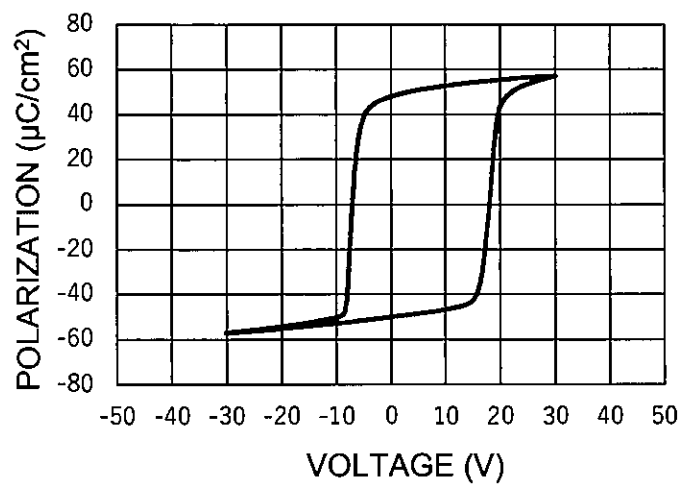


FIG. 36

