193193

G00002

(Explanation of the References)

1... cylindrical container

2... Inductively Coupled Plasma generation part

3, 411... matching apparatus

4, 412... high-frequency power source

5... nitrogen gas introduction part

6... substrate holding part

7... heater

8... bias applying part

9, 10, 29... introduction part

11... gas exhaust part

50... plasma

60... substrate

61... boron-nitride-carbon film

310, 410... decomposition part

501... transistor

502... wiring

503... interlayer insulator film

504... protective film

Fig. 1

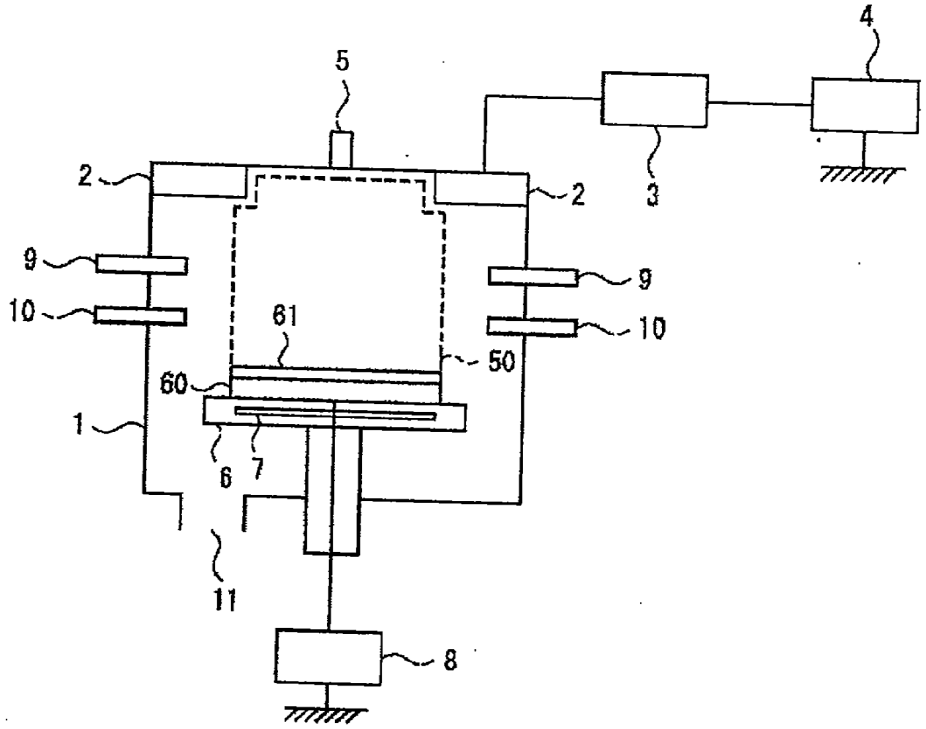

4
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61
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Fig. 2

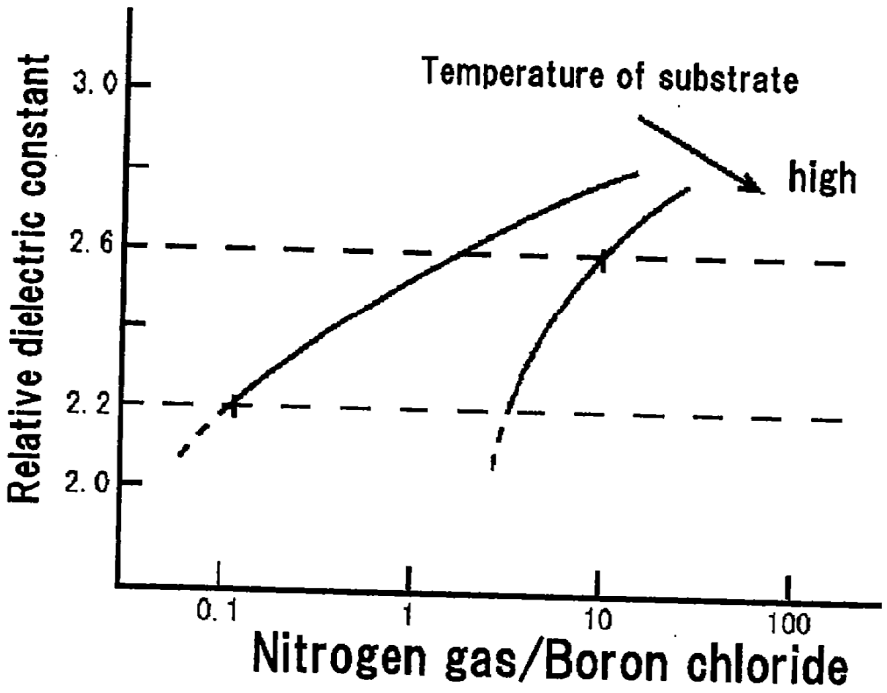

Temperature of substrate
high
Relative dielectric constant
3.0
2.6
2.2
2.0
0.1
1
10
100
Nitrogen gas/Boron chloride

Fig. 3

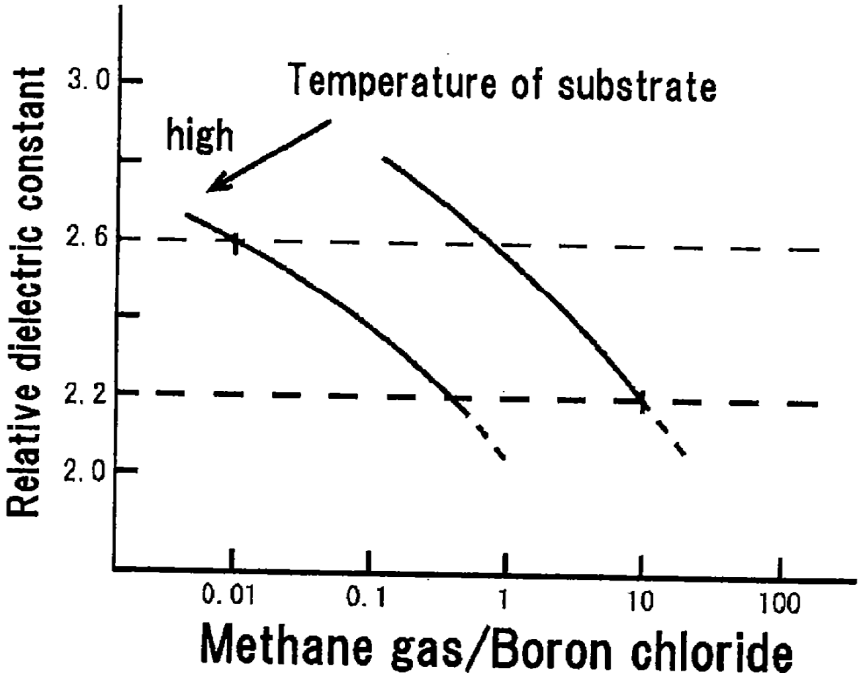

Relative dielectric constant
3.0
2.6
2.2
2.0
Temperature of substrate
high
0.01
0.1
1
10
100
Methane gas/Boron chloride

Fig. 4

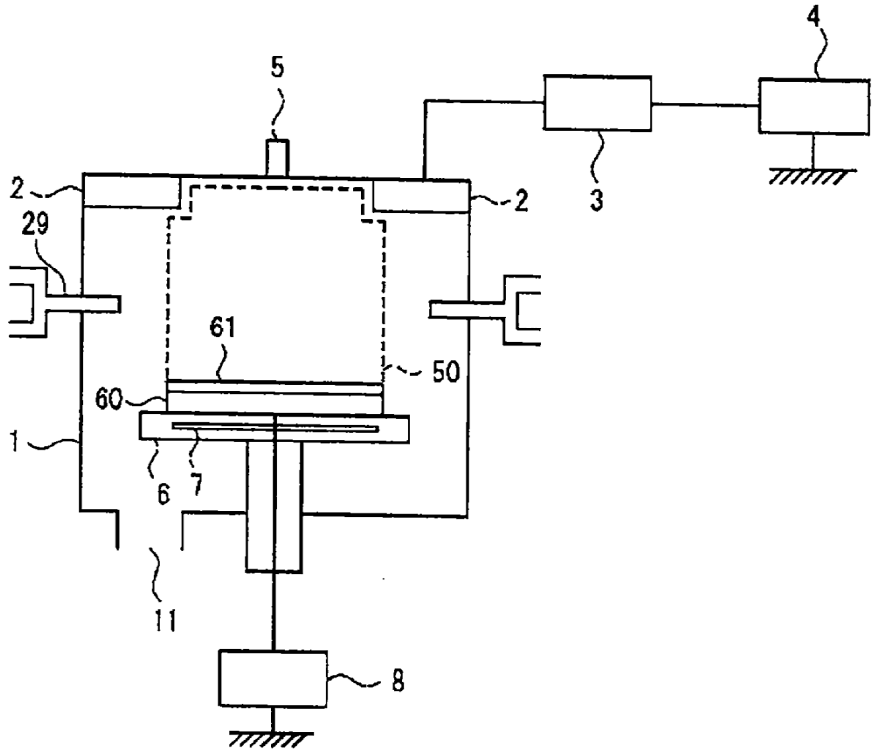

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Fig. 5

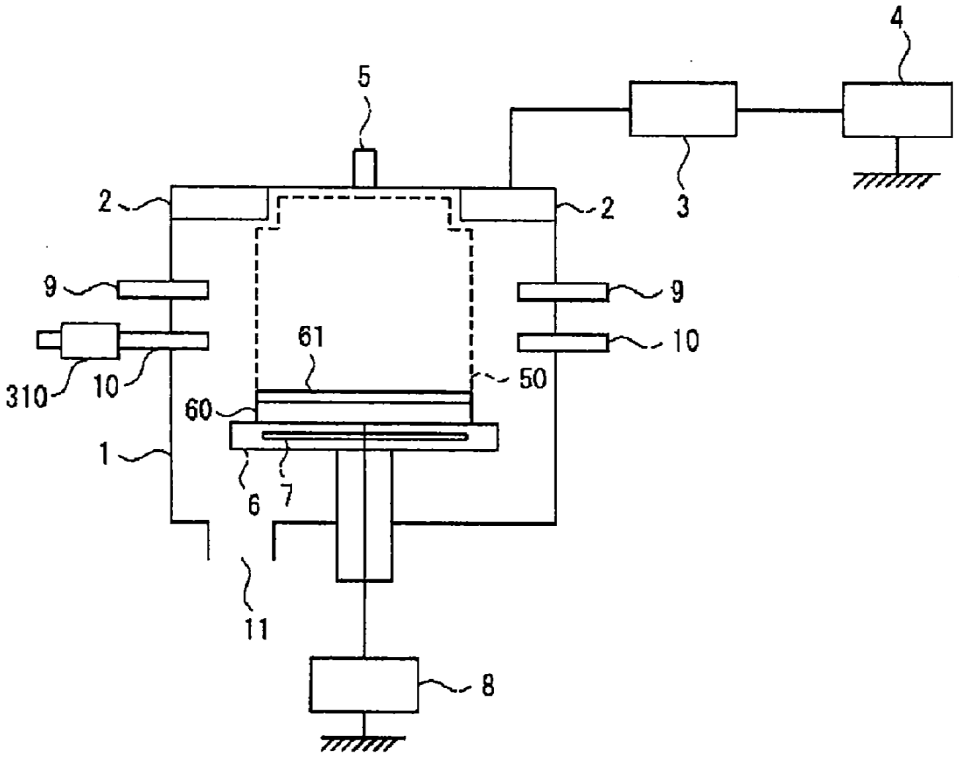

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310
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Fig. 6

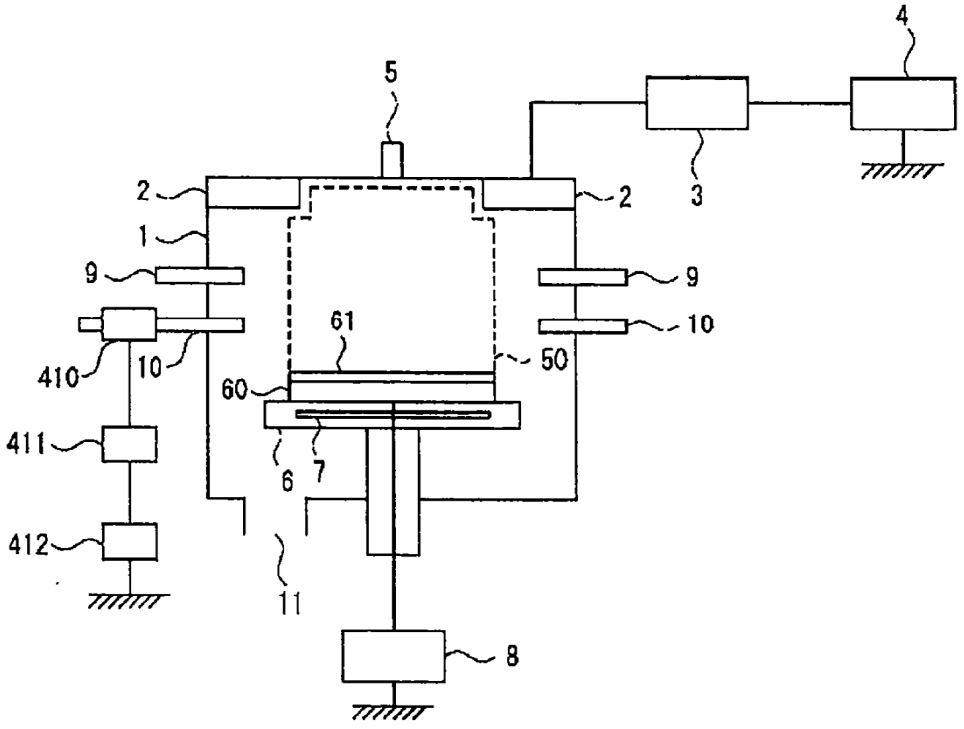

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61
10
410
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60
411
6
7
412
11
8

Fig. 7

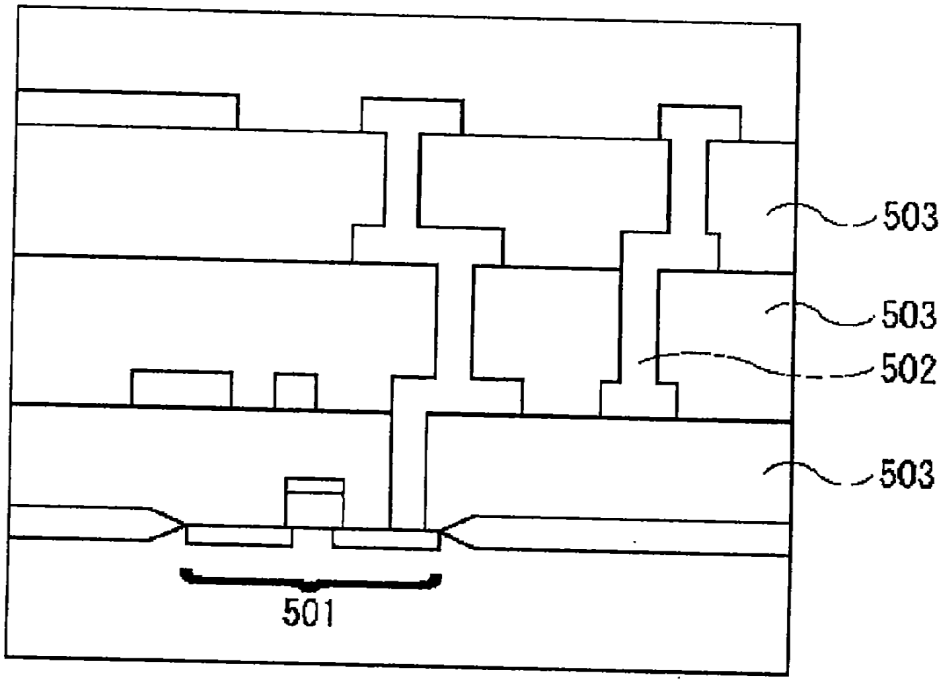


Fig. 8

