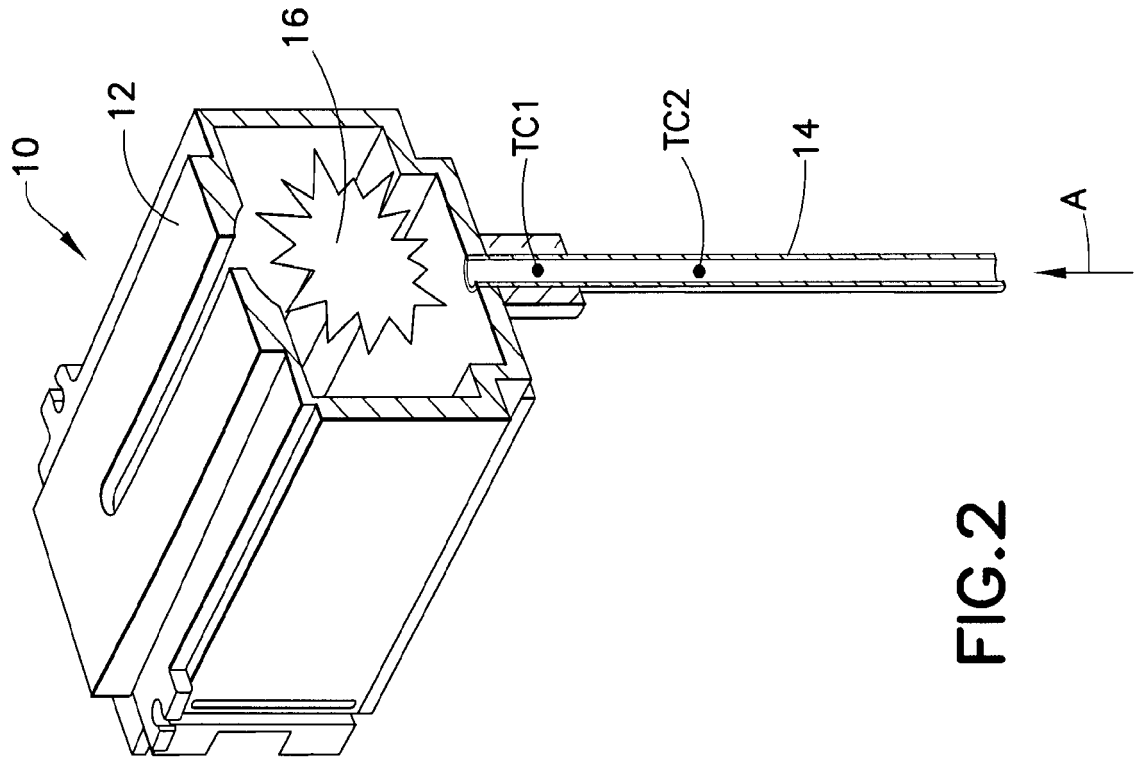


FIG.2

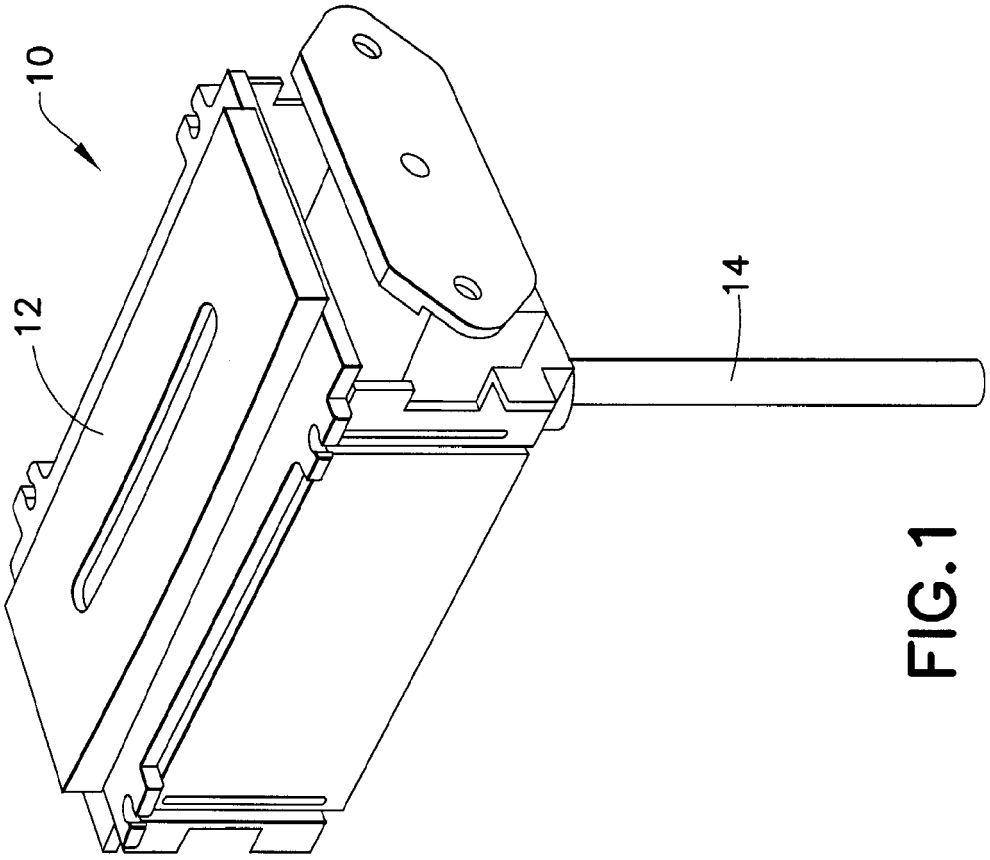


FIG.1

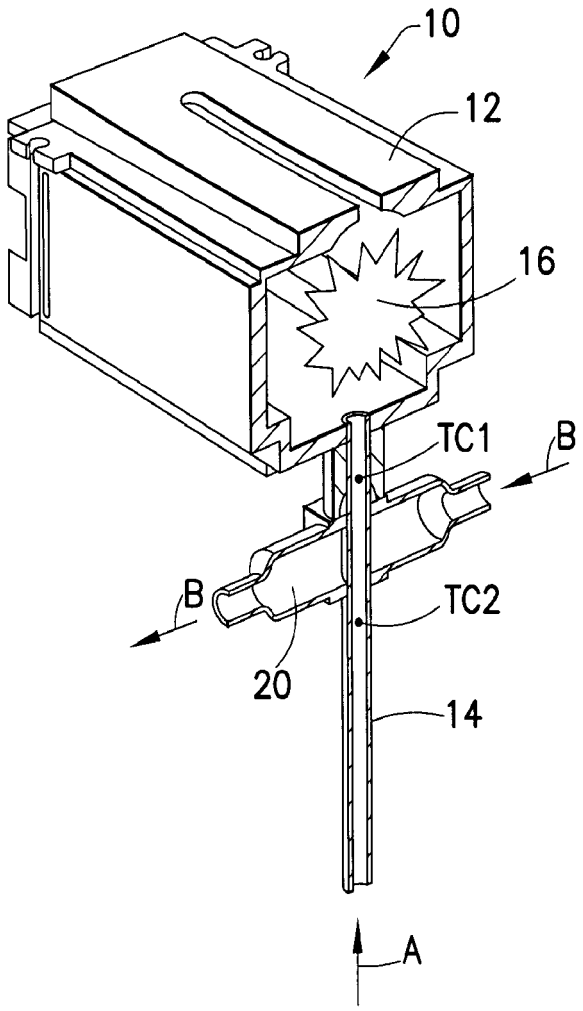


FIG.3

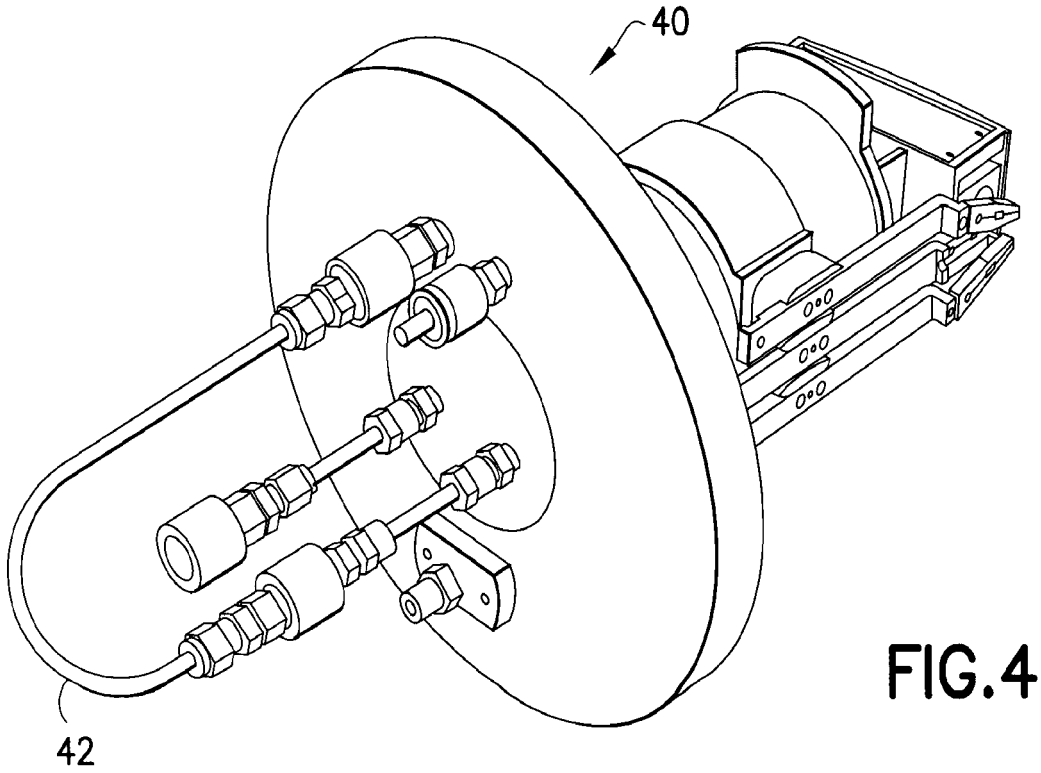


FIG.4

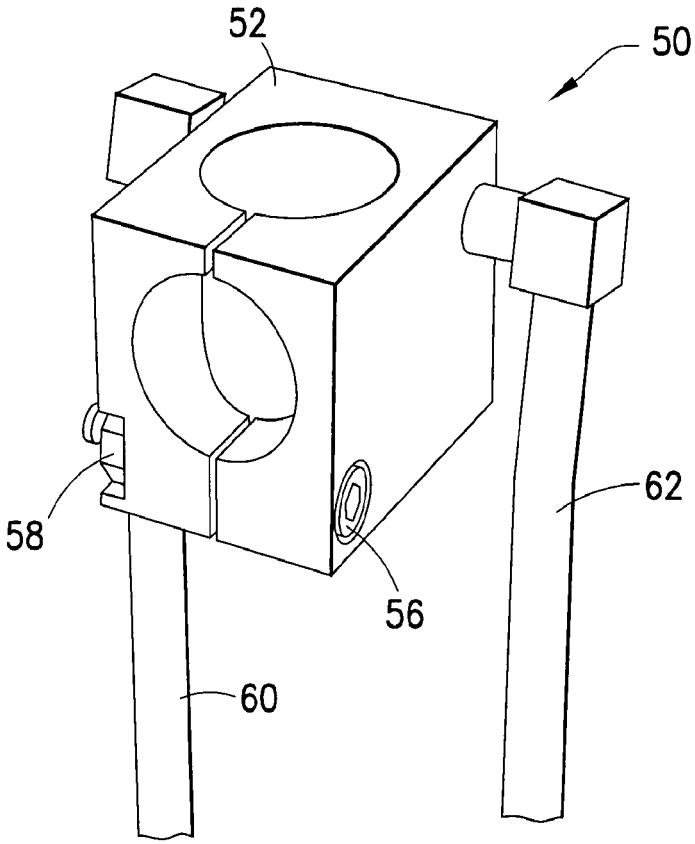


FIG.5

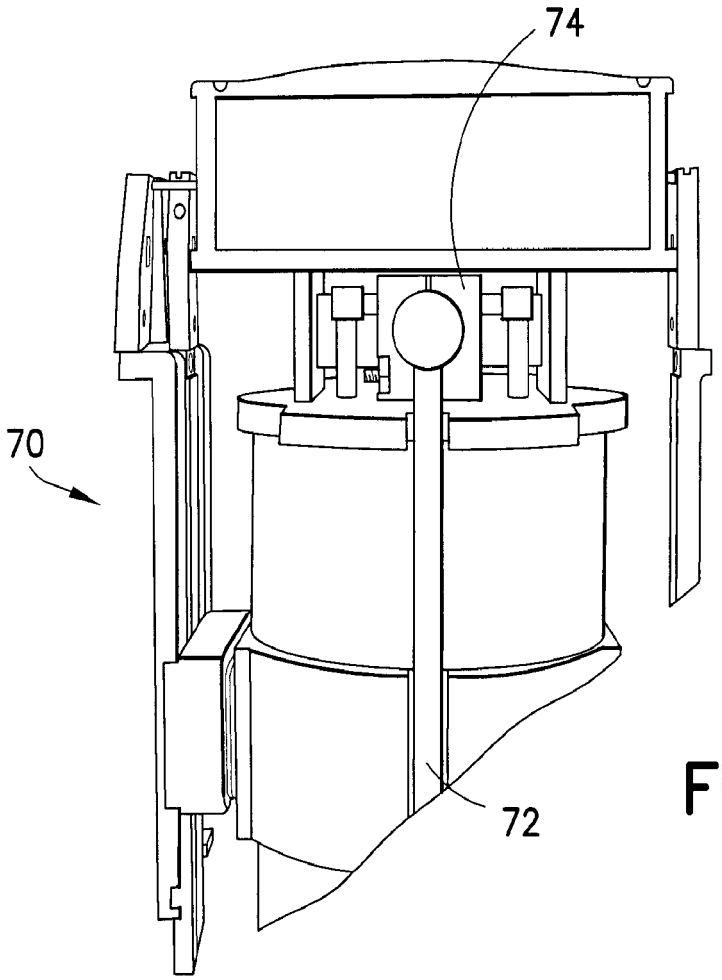


FIG.6

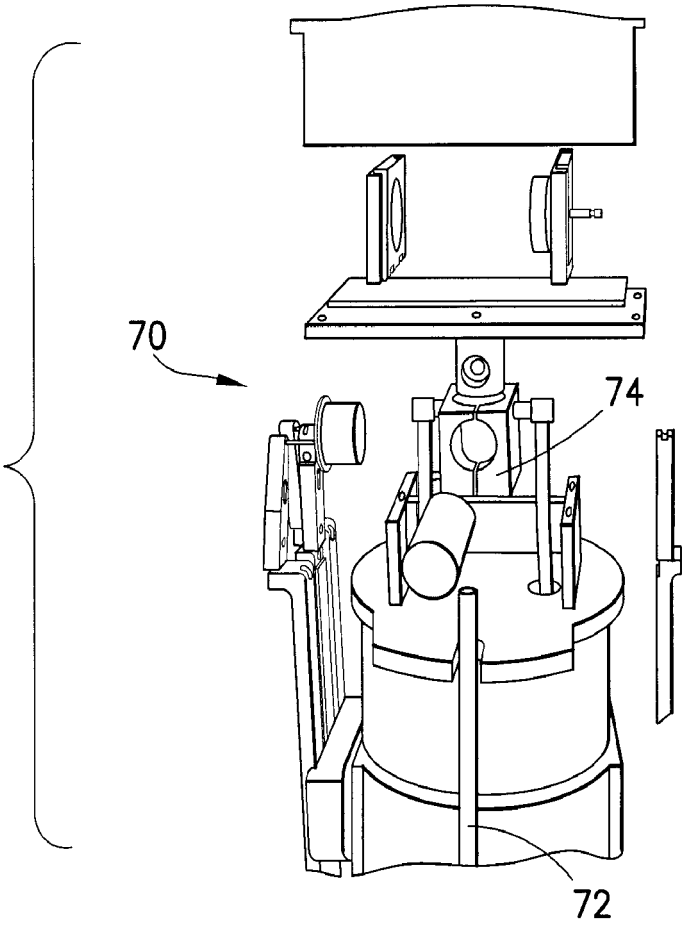


FIG.7

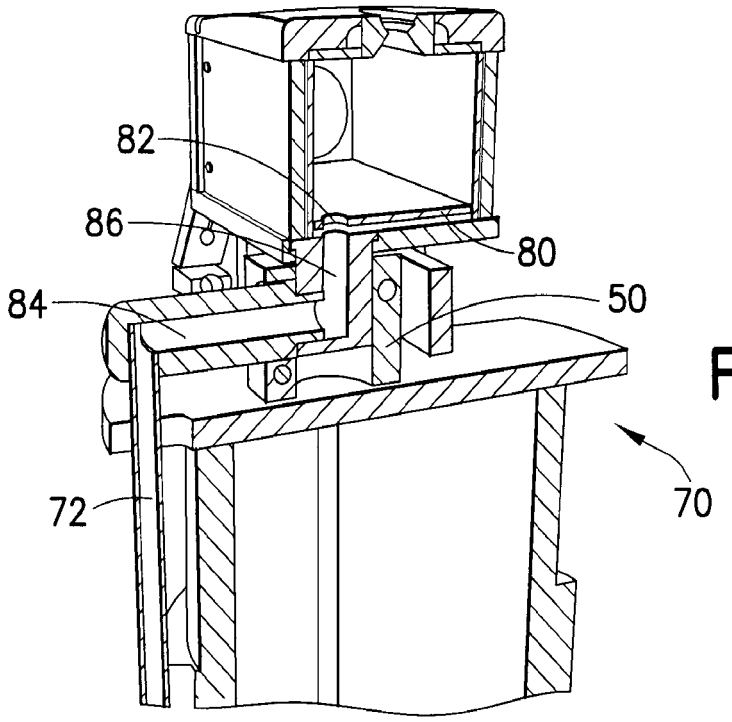


FIG.8

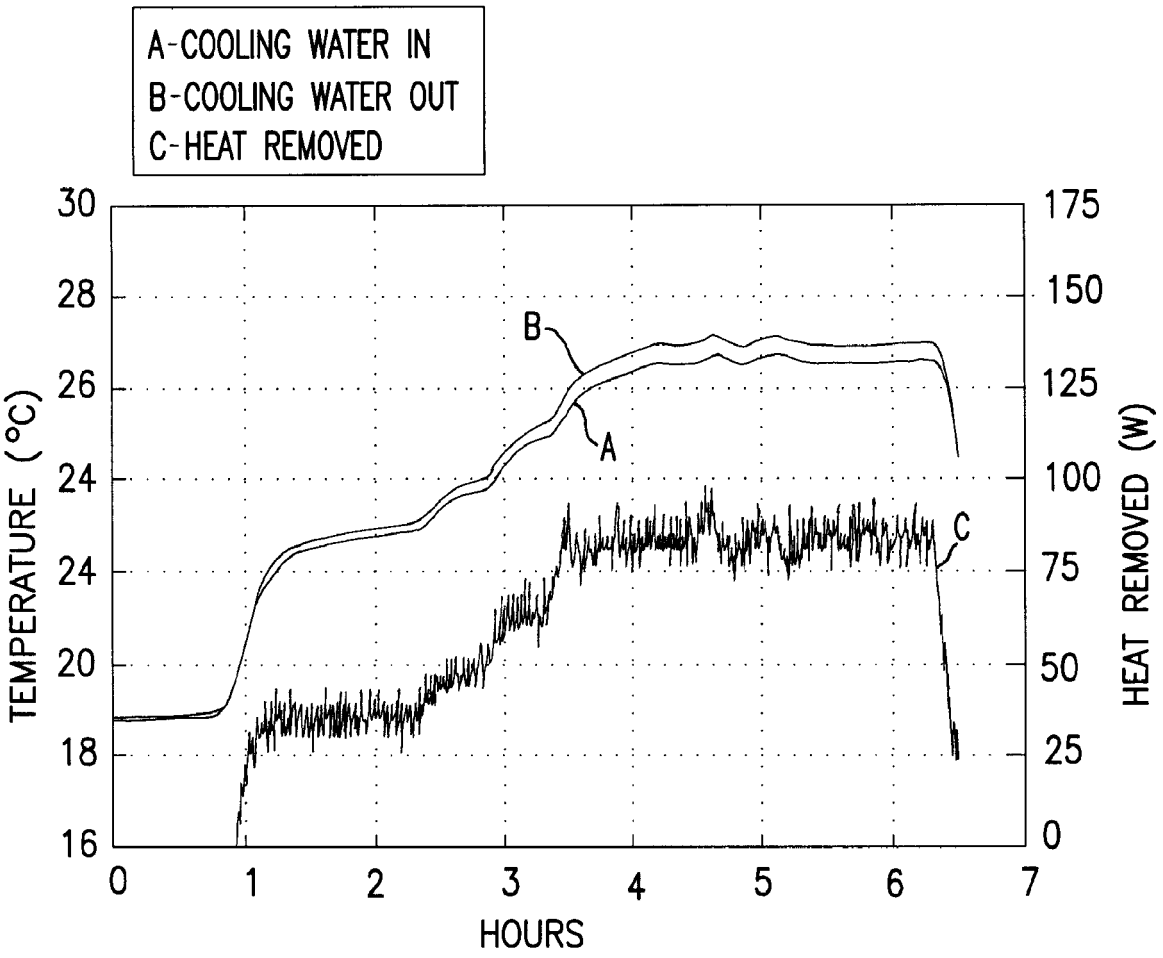


FIG.9

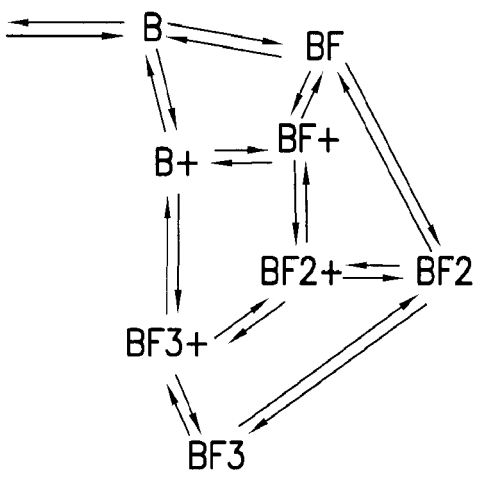


FIG.10

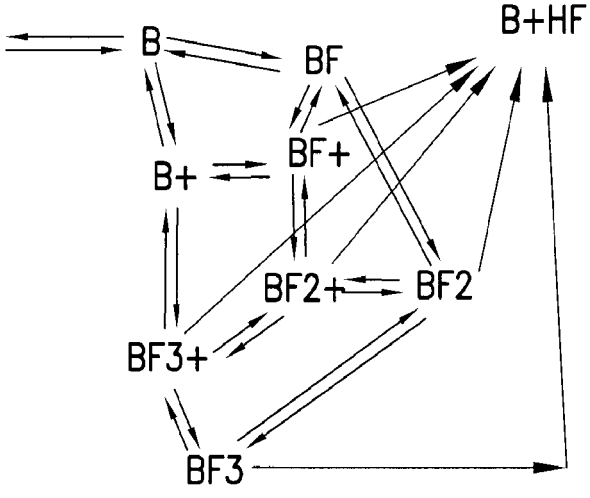


FIG.11

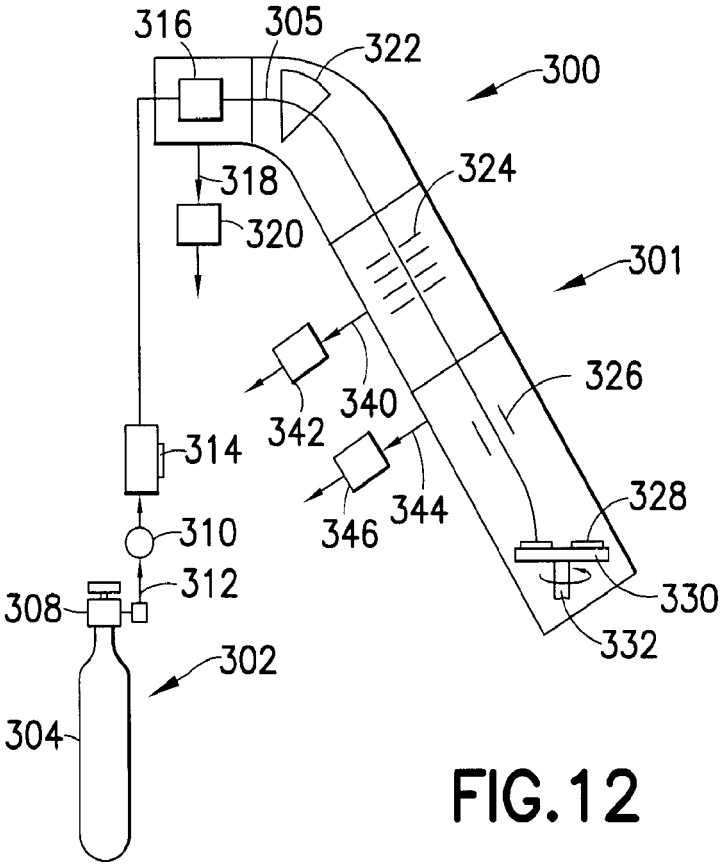

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FIG.12

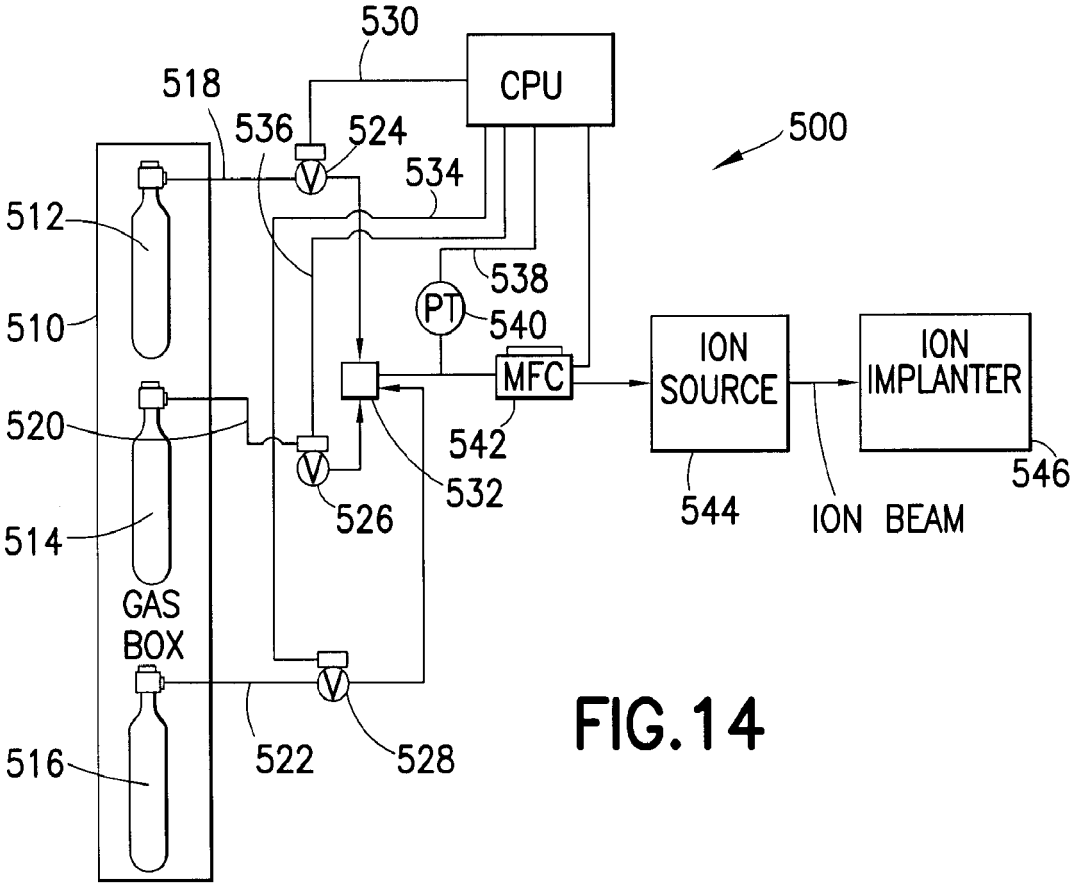

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PT
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510
ION SOURCE
ION IMPLANTER
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MFC
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532
546
526
544
514
ION BEAM
GAS BOX
516
522
528

FIG.14

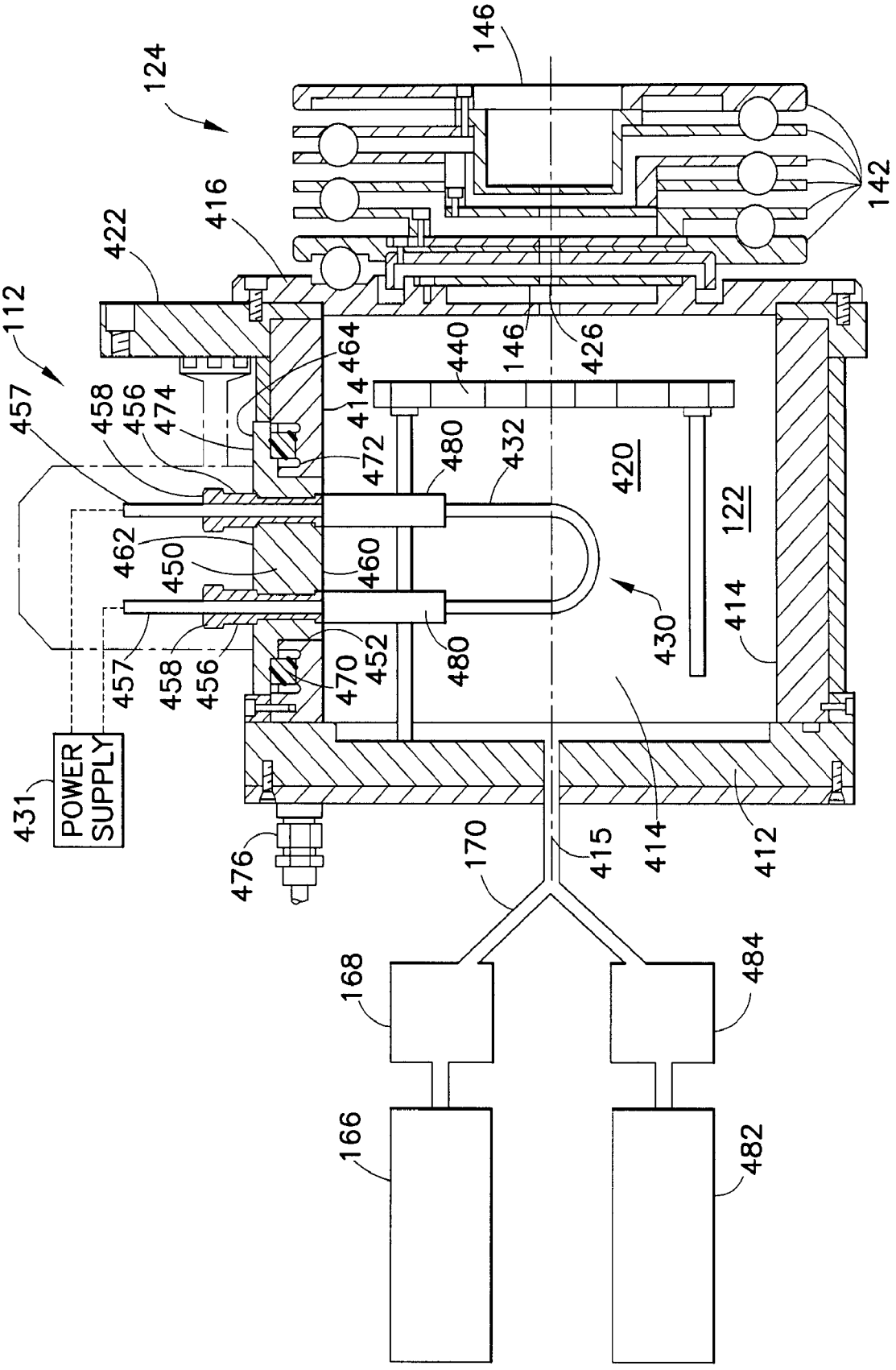

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414
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POWER SUPPLY
476
170
415
414
412
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484
166
482

FIG.13

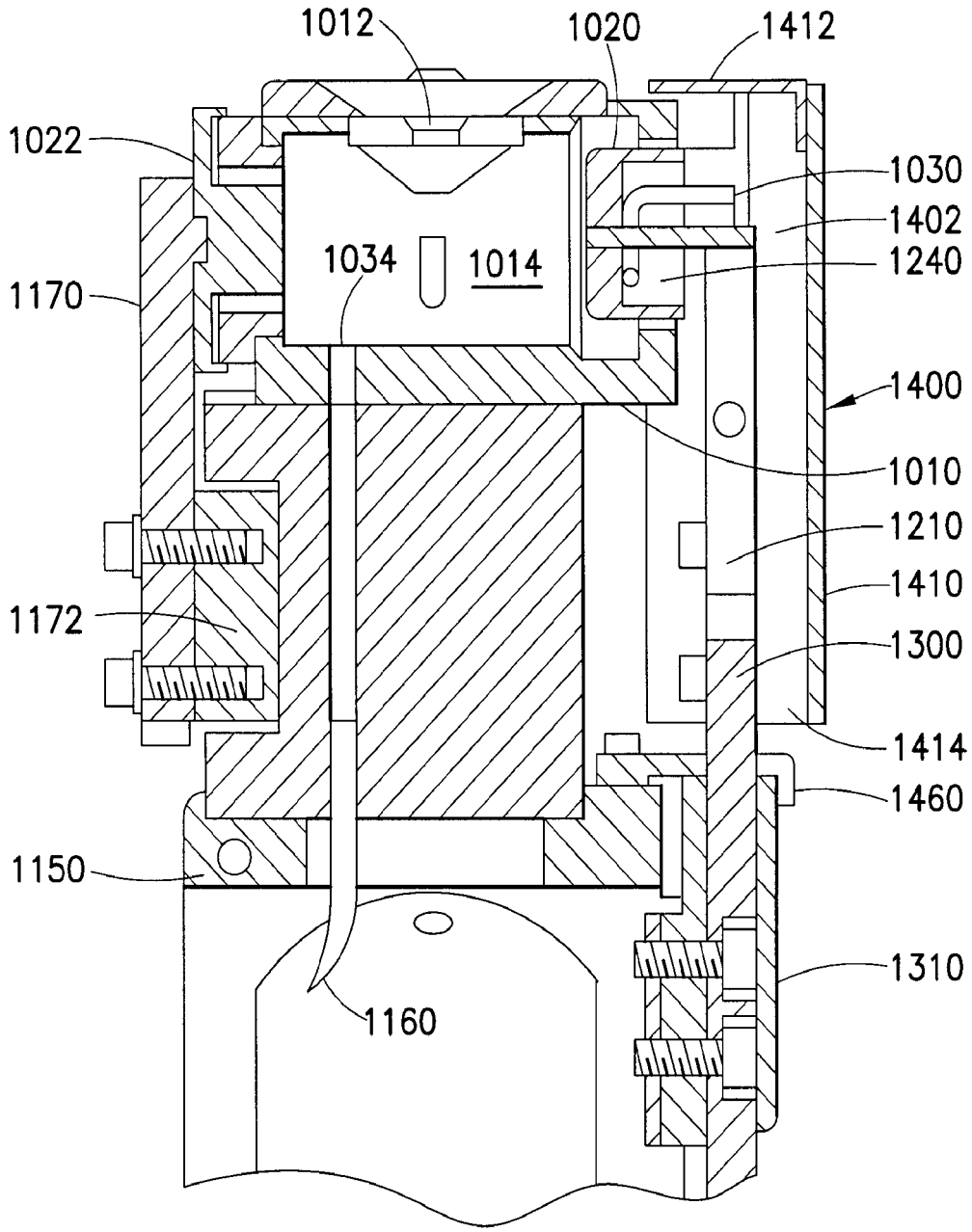

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FIG.15

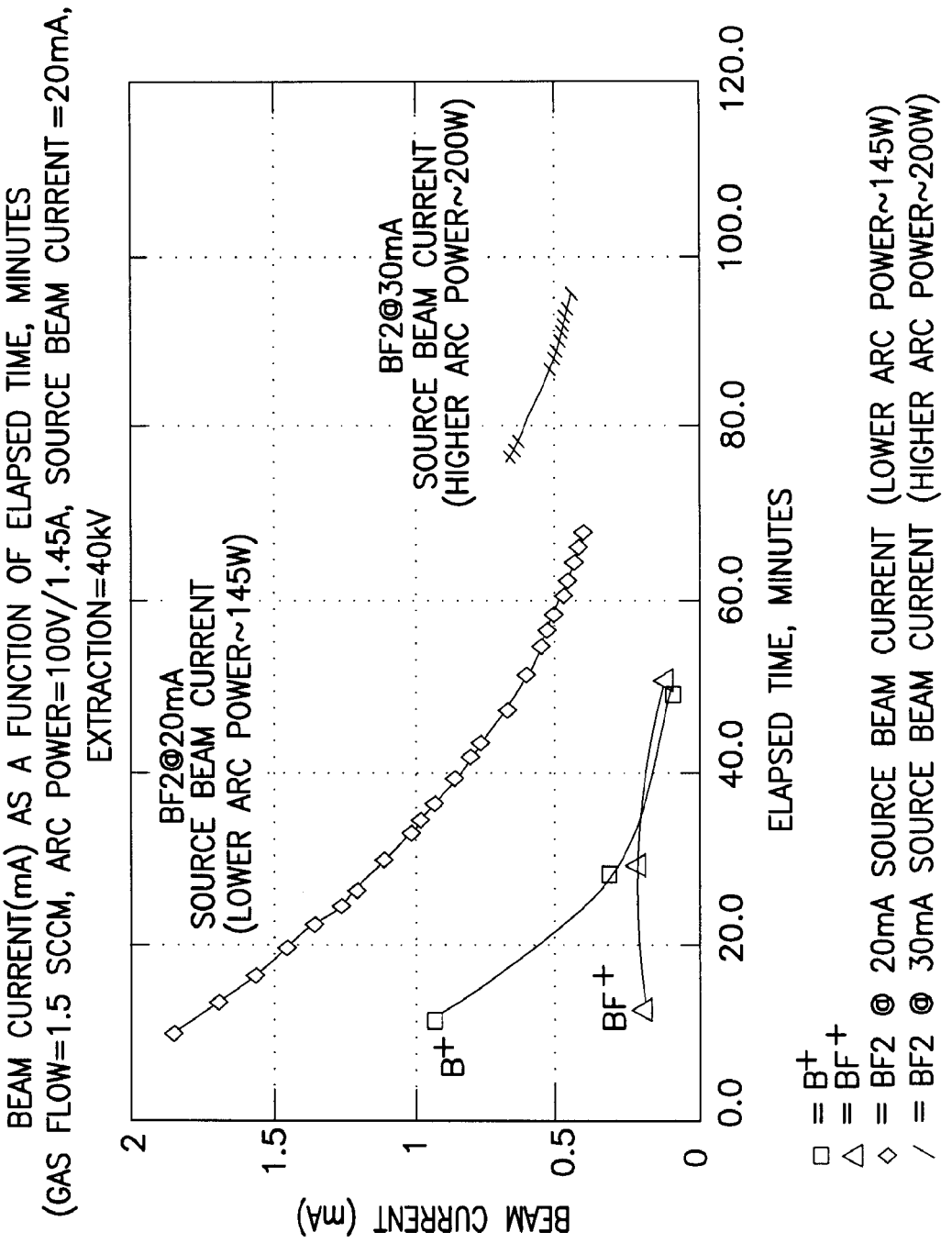

CLEANING BORON RESIDUE WITH NF_3
BEAM CURRENT(mA) AS A FUNCTION OF ELAPSED TIME, MINUTES
(GAS FLOW=1.5 SCCM, ARC POWER=100V/1.45A, SOURCE BEAM CURRENT =20mA,
EXTRACTION=40kV
BF2@20mA
SOURCE BEAM CURRENT
(LOWER ARC POWER~145W)
BF2@30mA
SOURCE BEAM CURRENT
(HIGHER ARC POWER~200W)
B+
BF+
BEAM CURRENT (mA)
ELAPSED TIME, MINUTES
0
0.5
1
1.5
2
0.0
20.0
40.0
60.0
80.0
100.0
120.0
□ = B+
△ = BF+
◇ = BF2 @ 20mA SOURCE BEAM CURRENT (LOWER ARC POWER~145W)
/ = BF2 @ 30mA SOURCE BEAM CURRENT (HIGHER ARC POWER~200W)

FIG16