

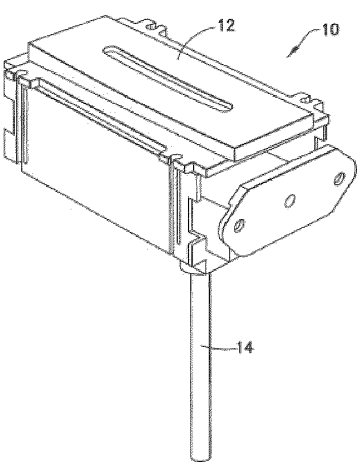


FIG. 1

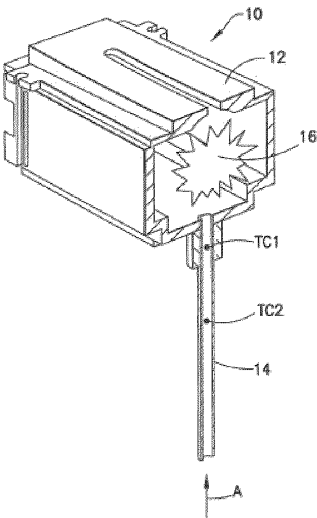


FIG. 2A

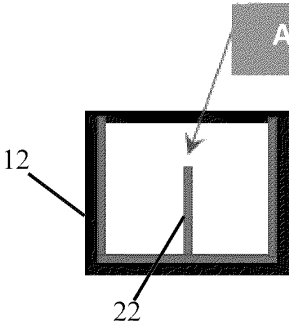


FIG. 2B

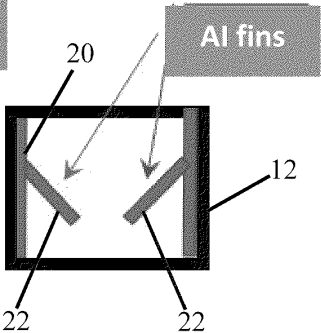


FIG. 2C

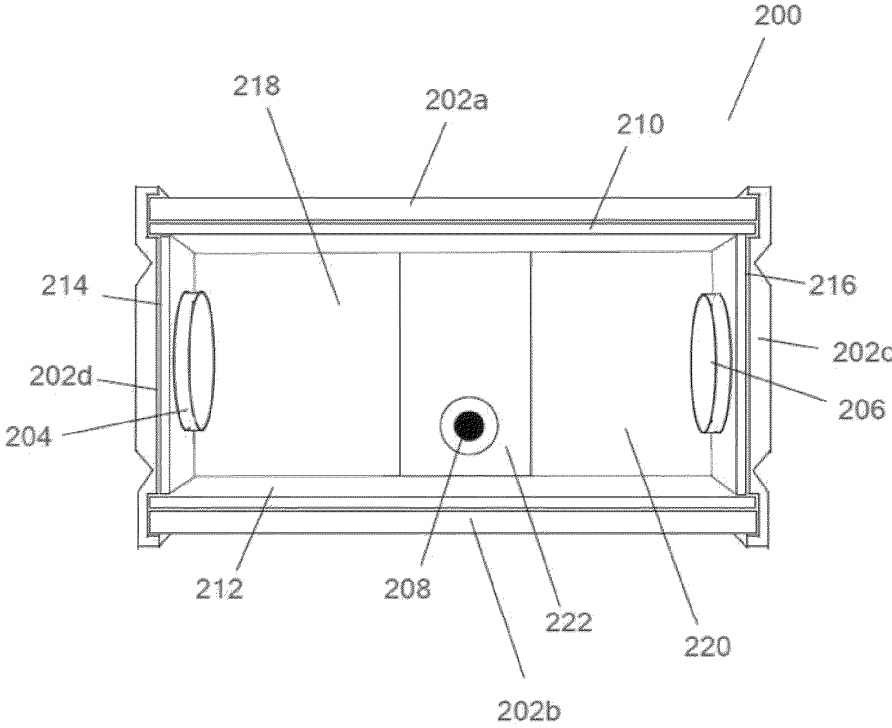


FIG. 2D

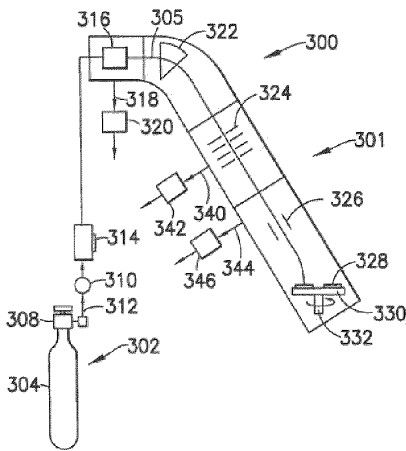


FIG. 3

Beam Performance – AlN Target

➤ Al+ beam current vs.
gas flow – AlN target

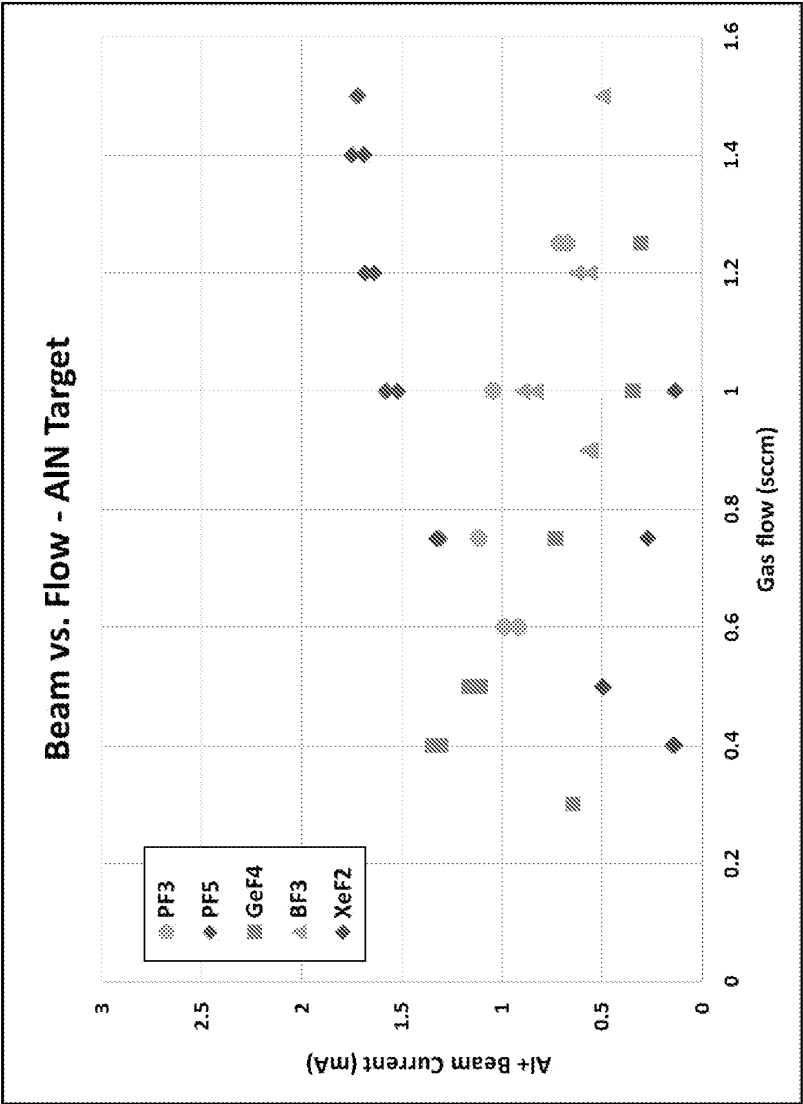
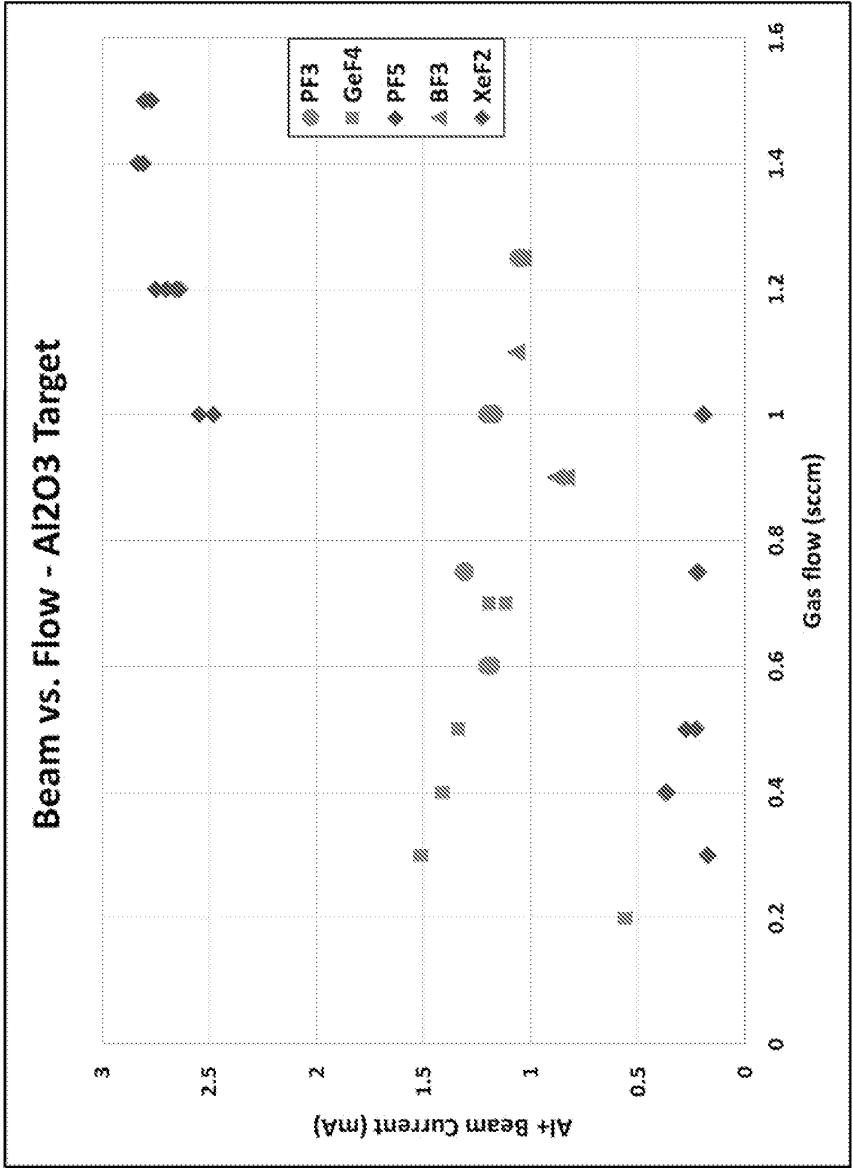


FIG. 4

Beam Performance – Al2O3 Target



➤ Al+ beam current vs.
gas flow – Al2O3
target

FIG. 5

Beam Performance – PF with H2 Co-flow - AlN Target

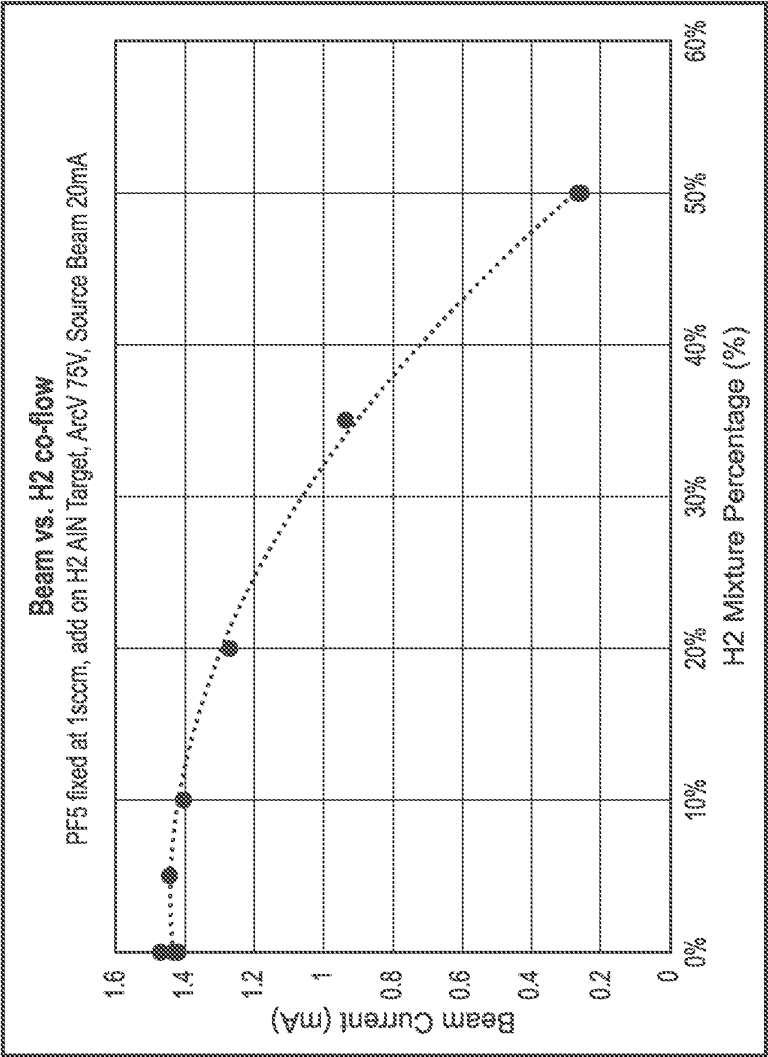


FIG. 6

Beam Spectrum – PF5 with H2 Co-flow - AlN Target

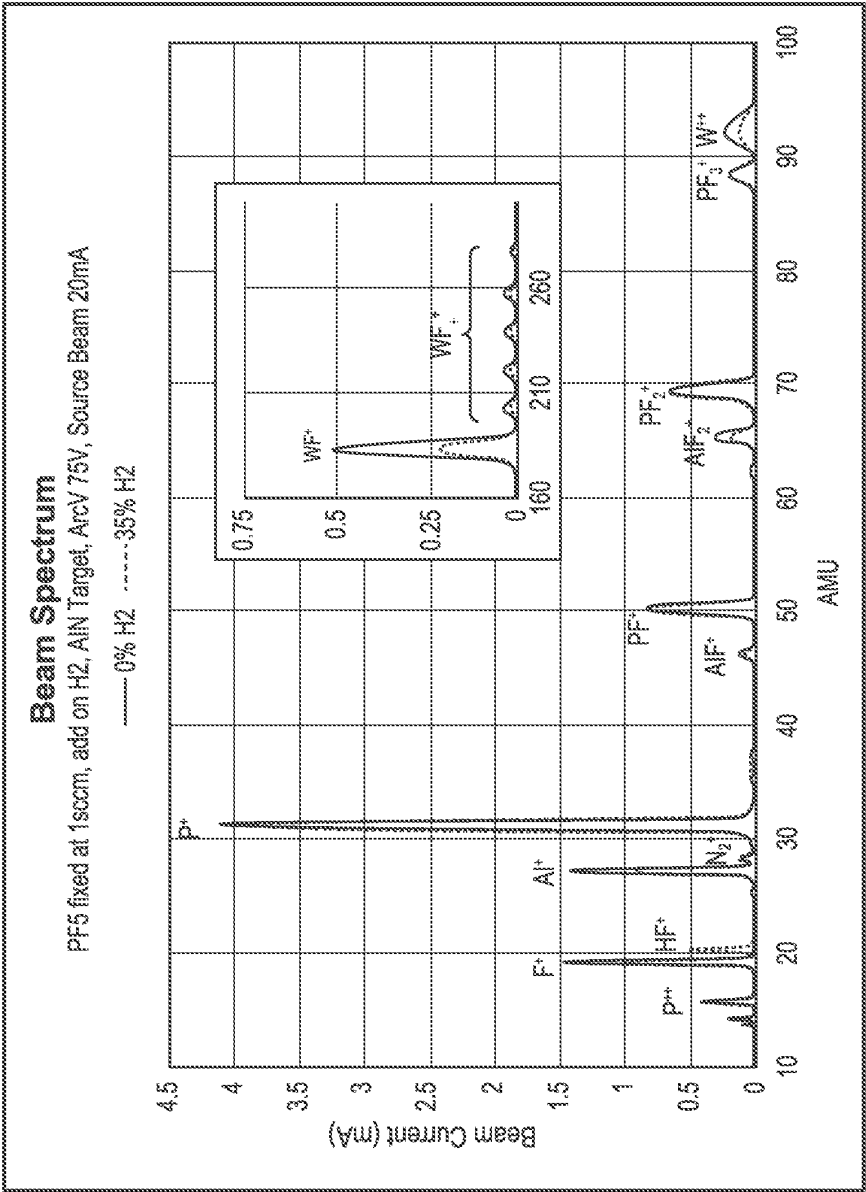


FIG. 7

W+Beam Trend – PF5 with H2 Co-flow - AlN Target

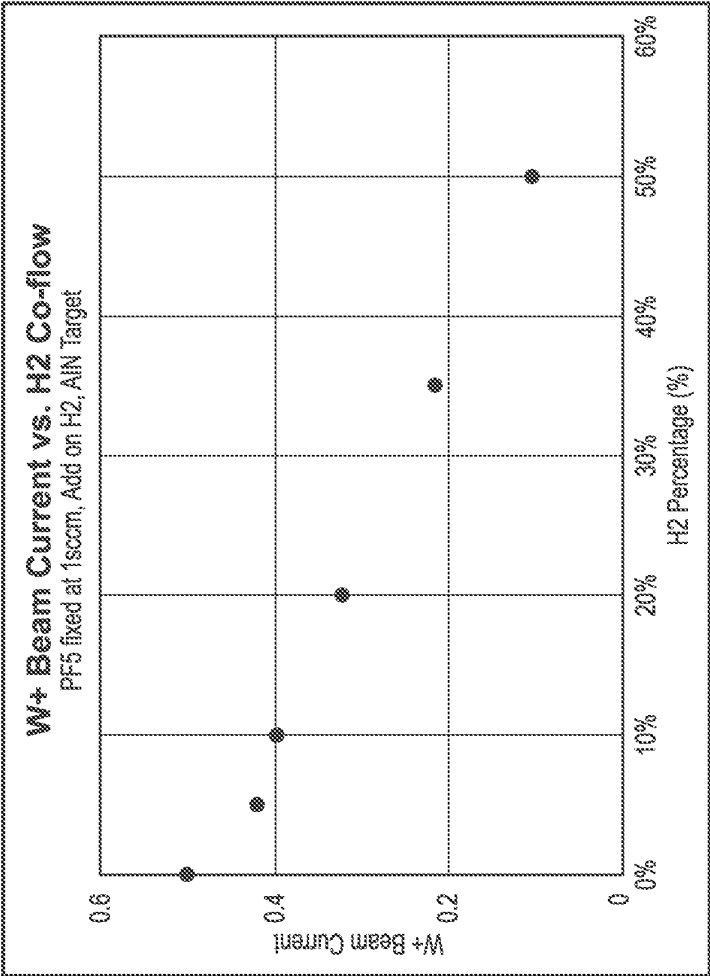


FIG. 8

Beam Spectrum – PF5 with H2 Co-flow – Al2O3 Target

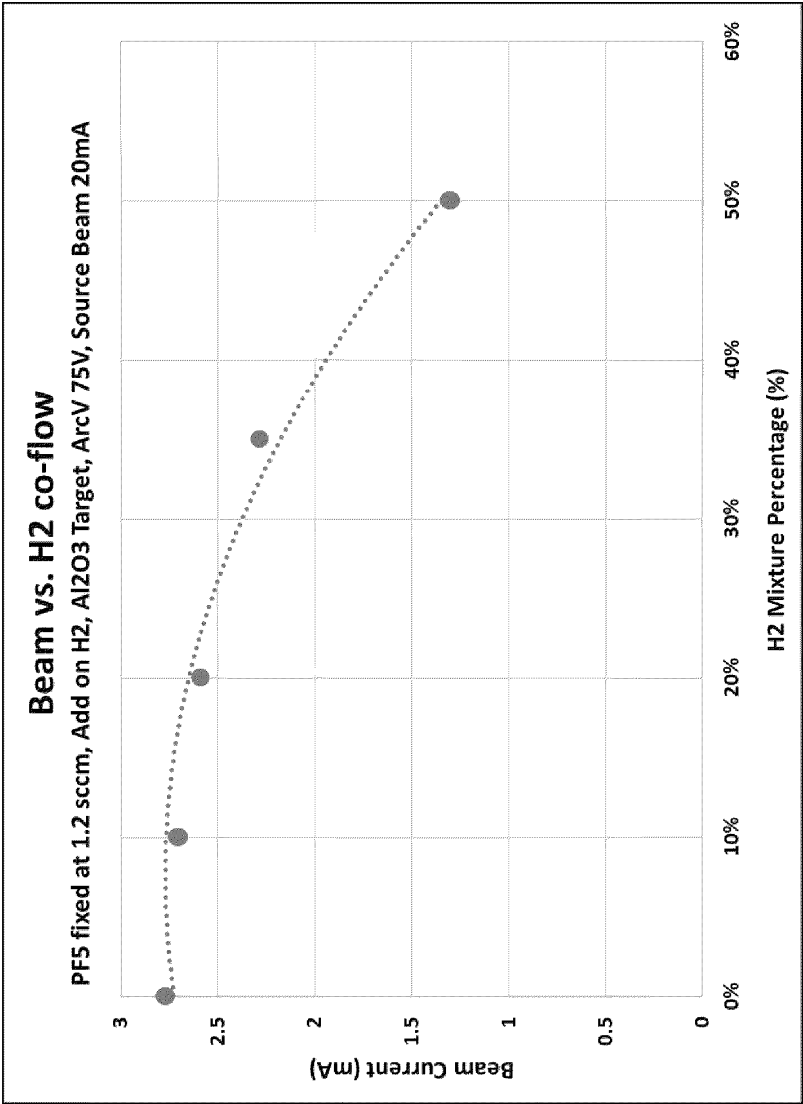


FIG. 9

Beam Spectrum – PF5 with H2 Co-flow - Al2O3 Target

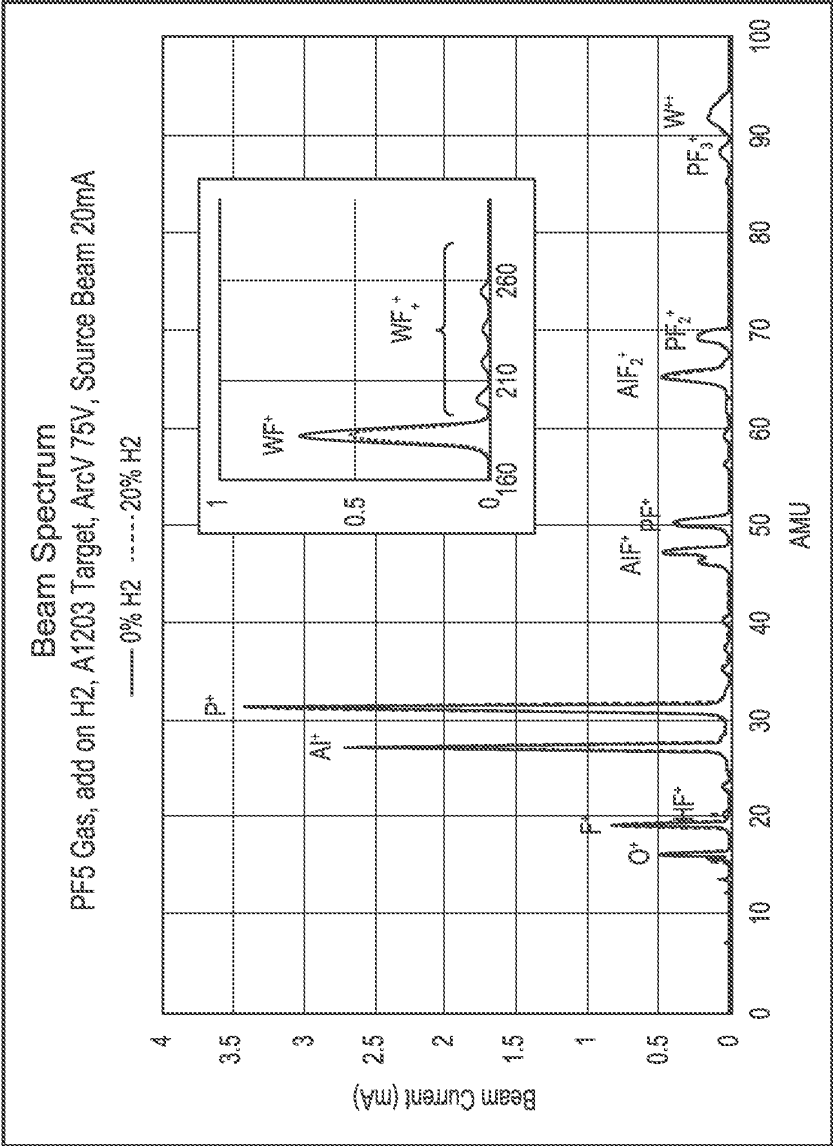


FIG. 10

W+ Beam Trend – PF5 with H2 Co-flow – Al2O3 Target

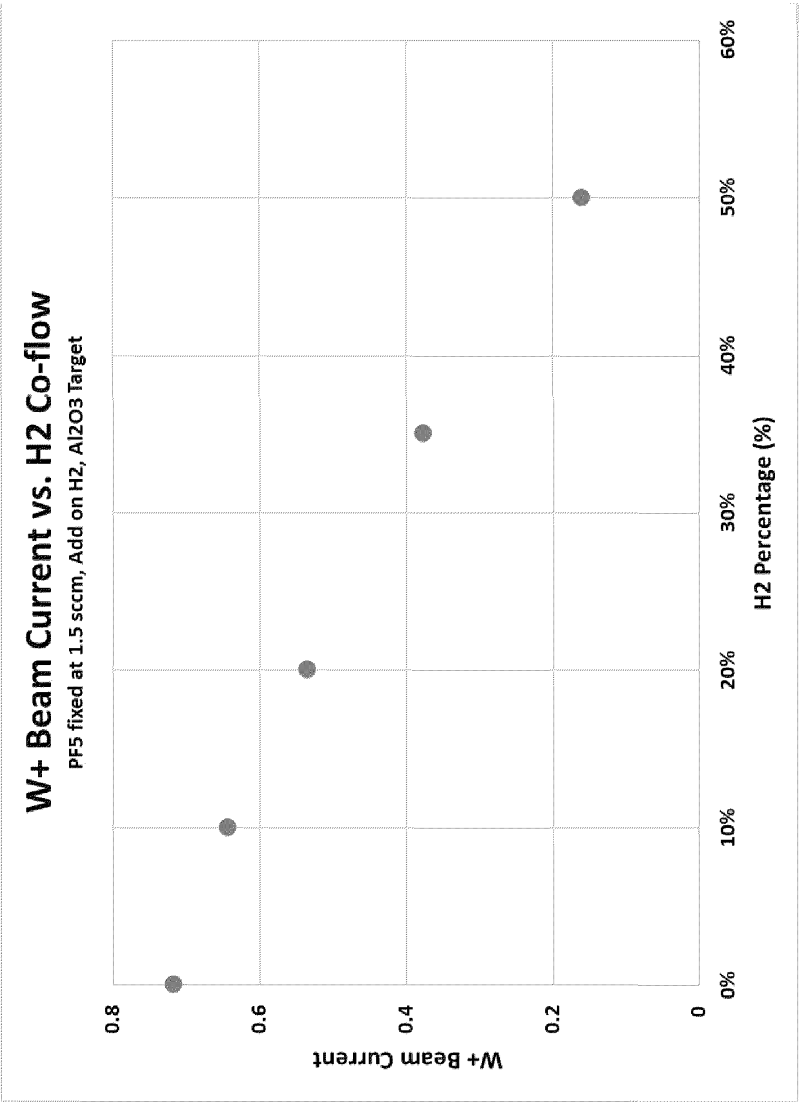


FIG. 11

Beam Spectrum – GeF4 with H2 Co-flow - AlN Target

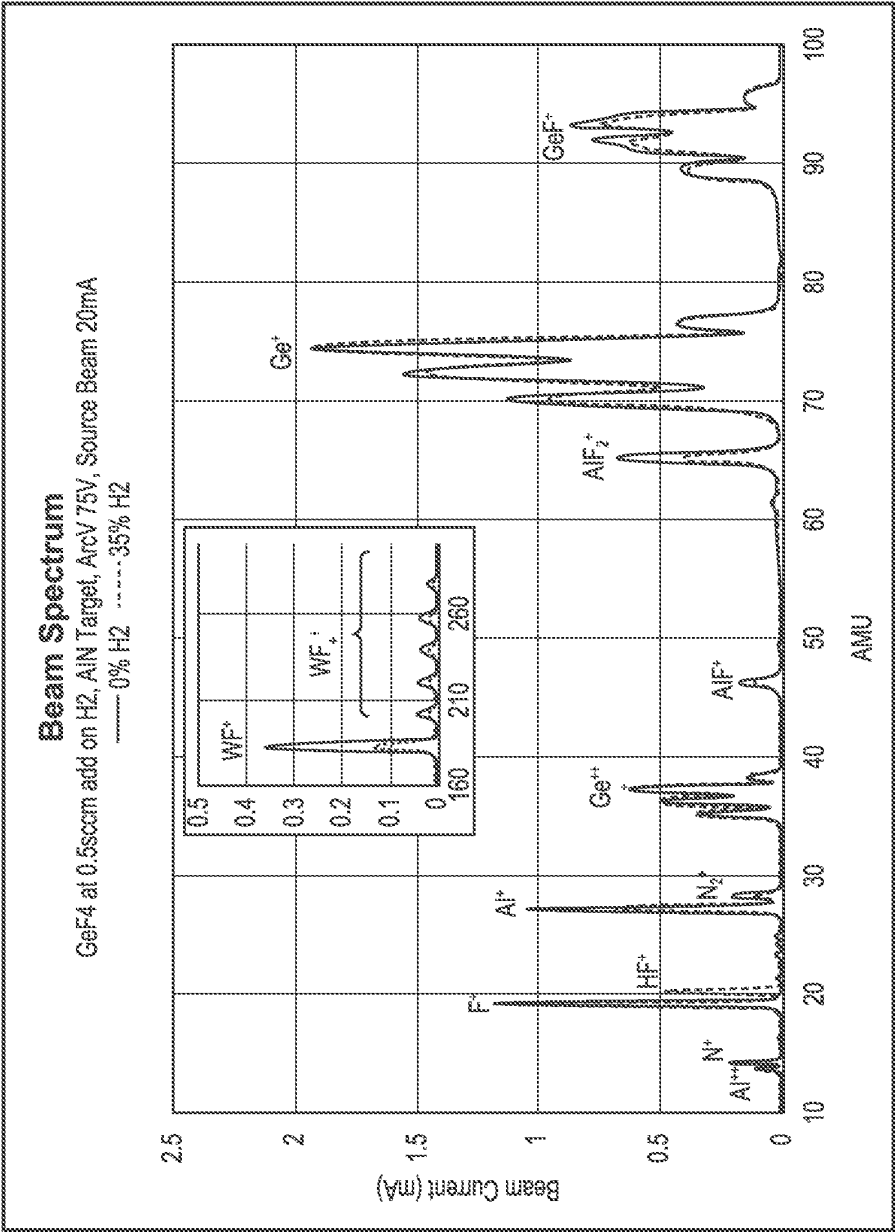


FIG. 12

Beam Spectrum – GeF4 with H2 Co-flow - Al2O3 Target

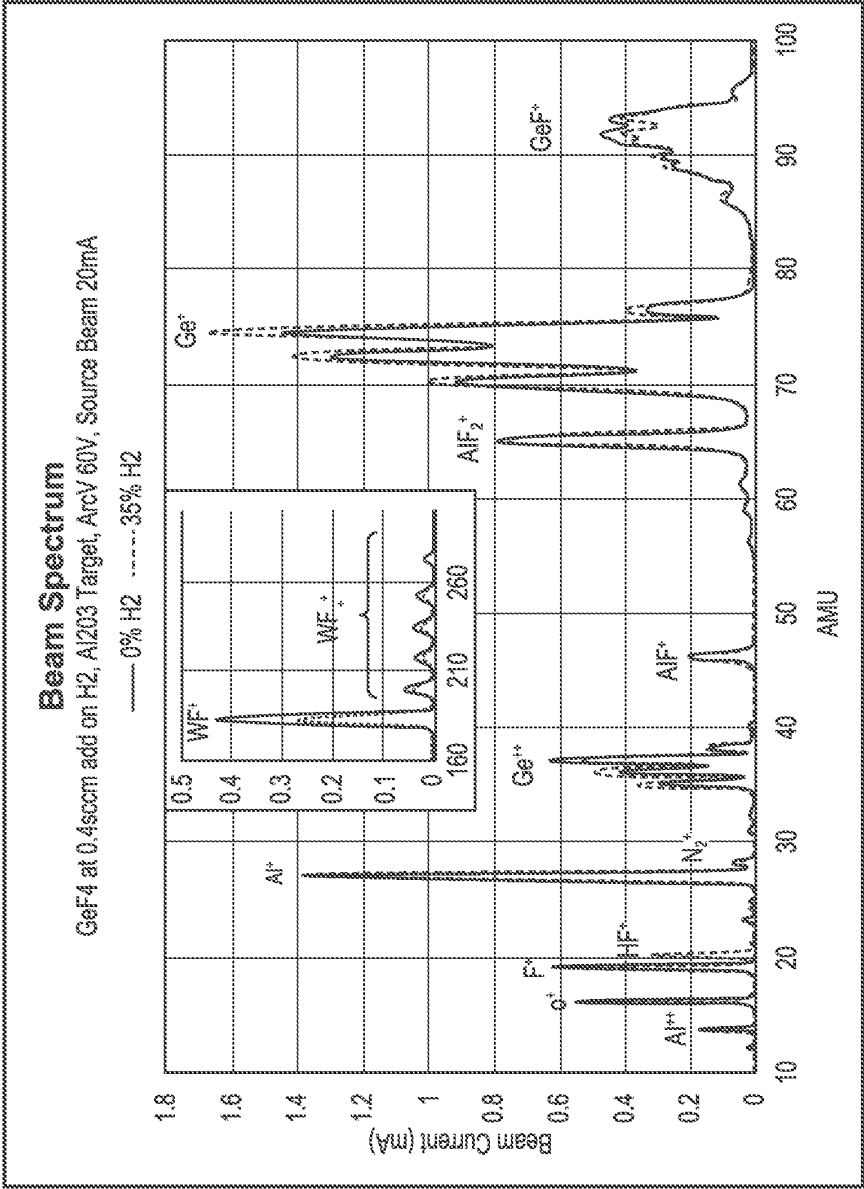


FIG. 13

Beam Performance – PF3 with H2 Co-flow – Al2O3 Target

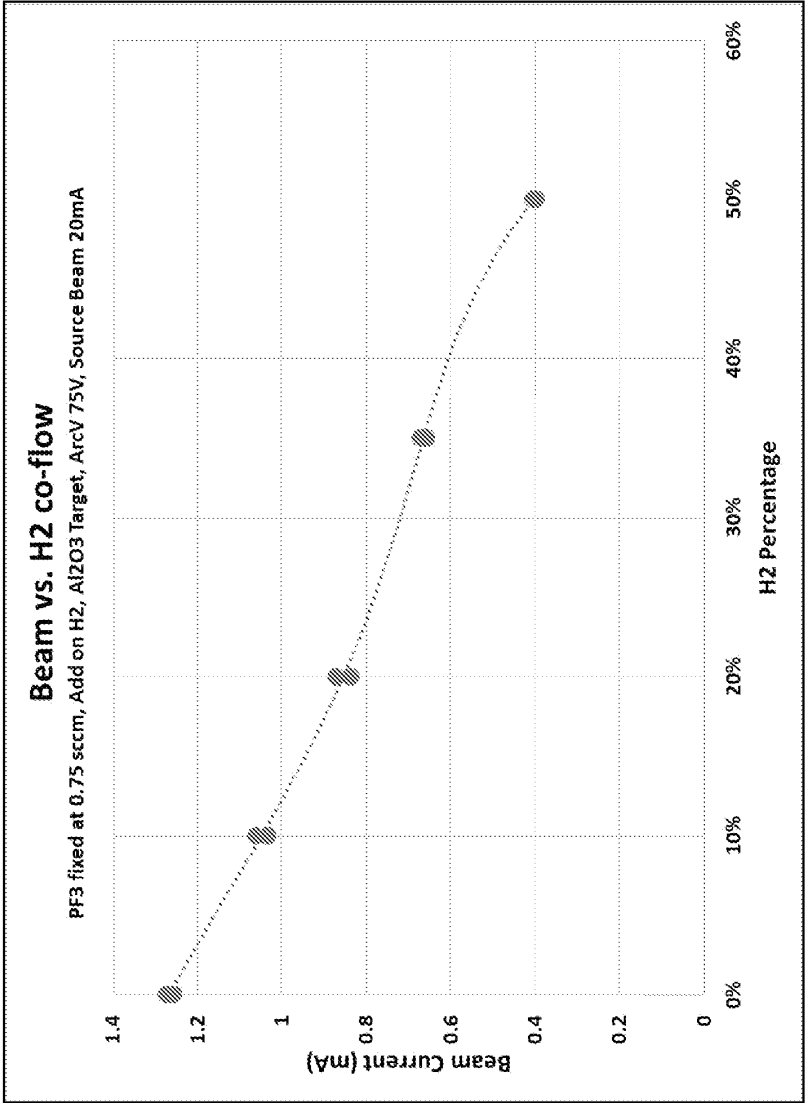


FIG. 14

Beam Spectrum – PF3 with H2 Co-flow - Al2O3 Target

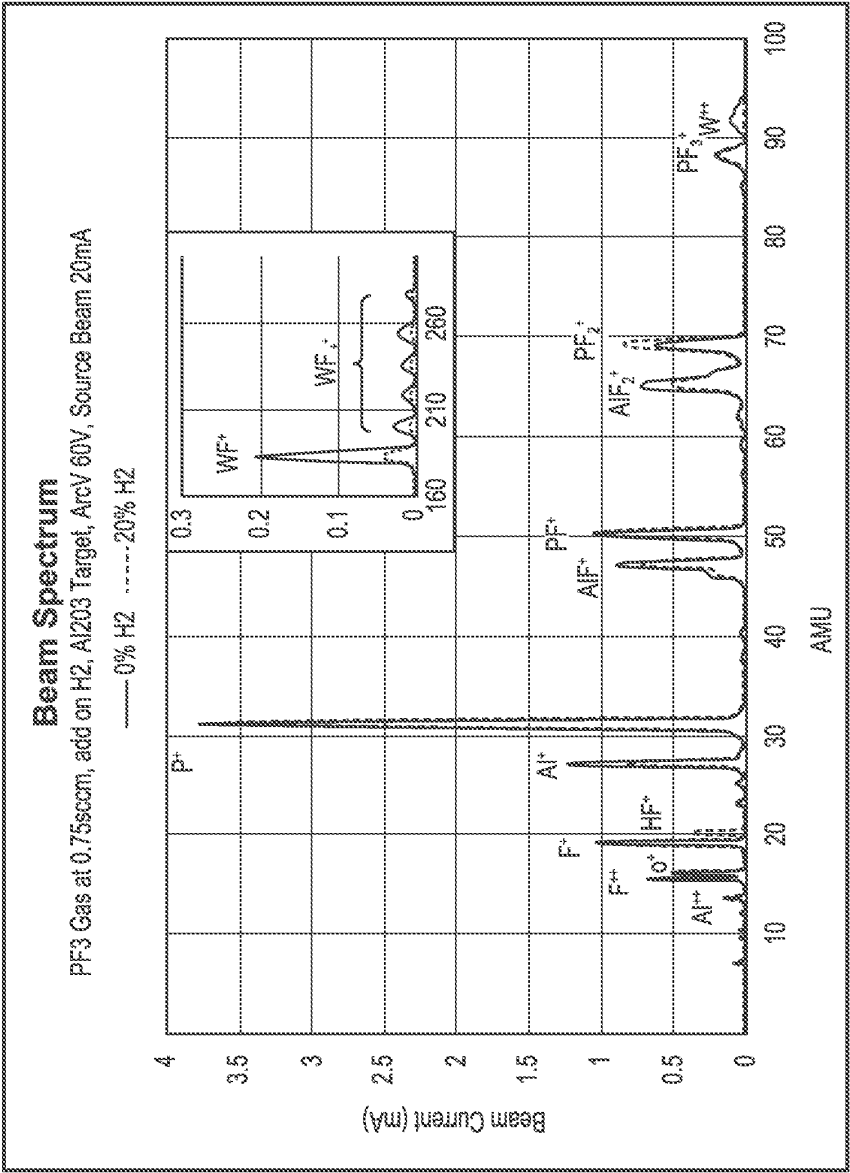


FIG. 15

W+ Beam – PF3 with H2 Co-flow – Al2O3 Target

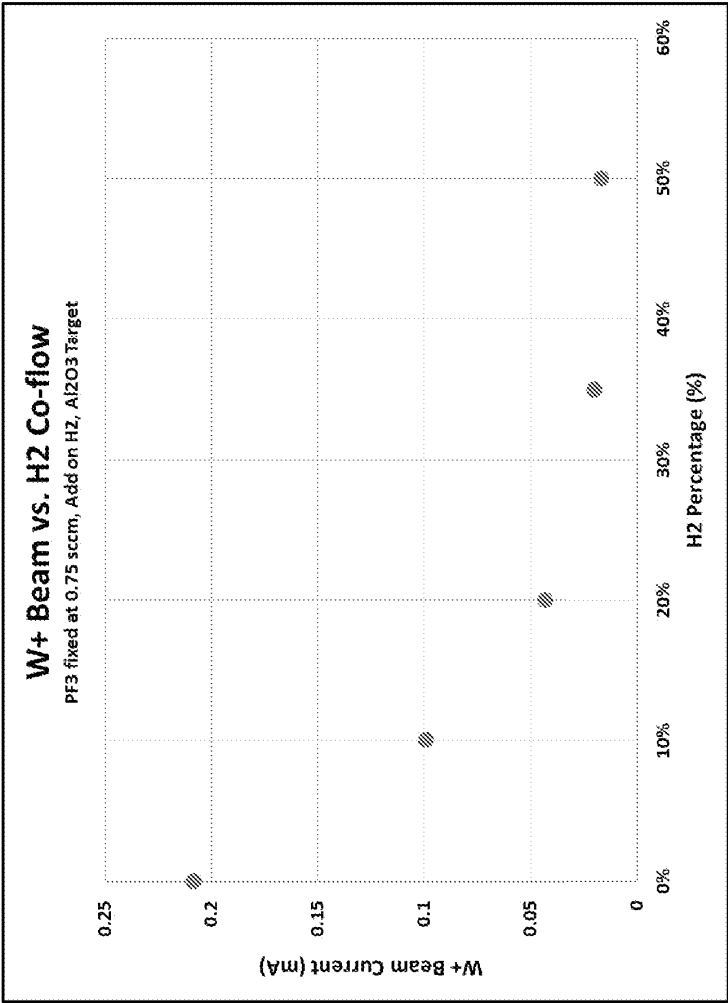


FIG. 16

Beam Performance – BF3 with H2 Co-flow – Al2O3 Target

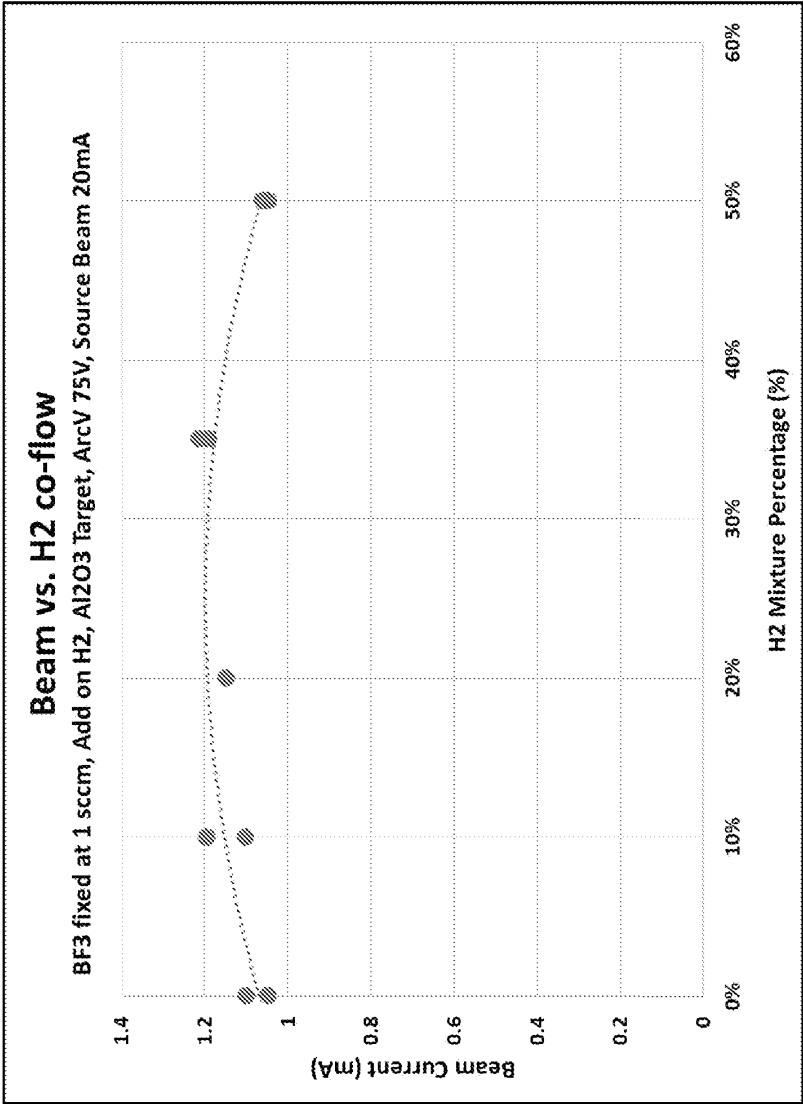


FIG. 17

Beam Spectrum – BF3 with H2 Co-flow - Al2O3 Target

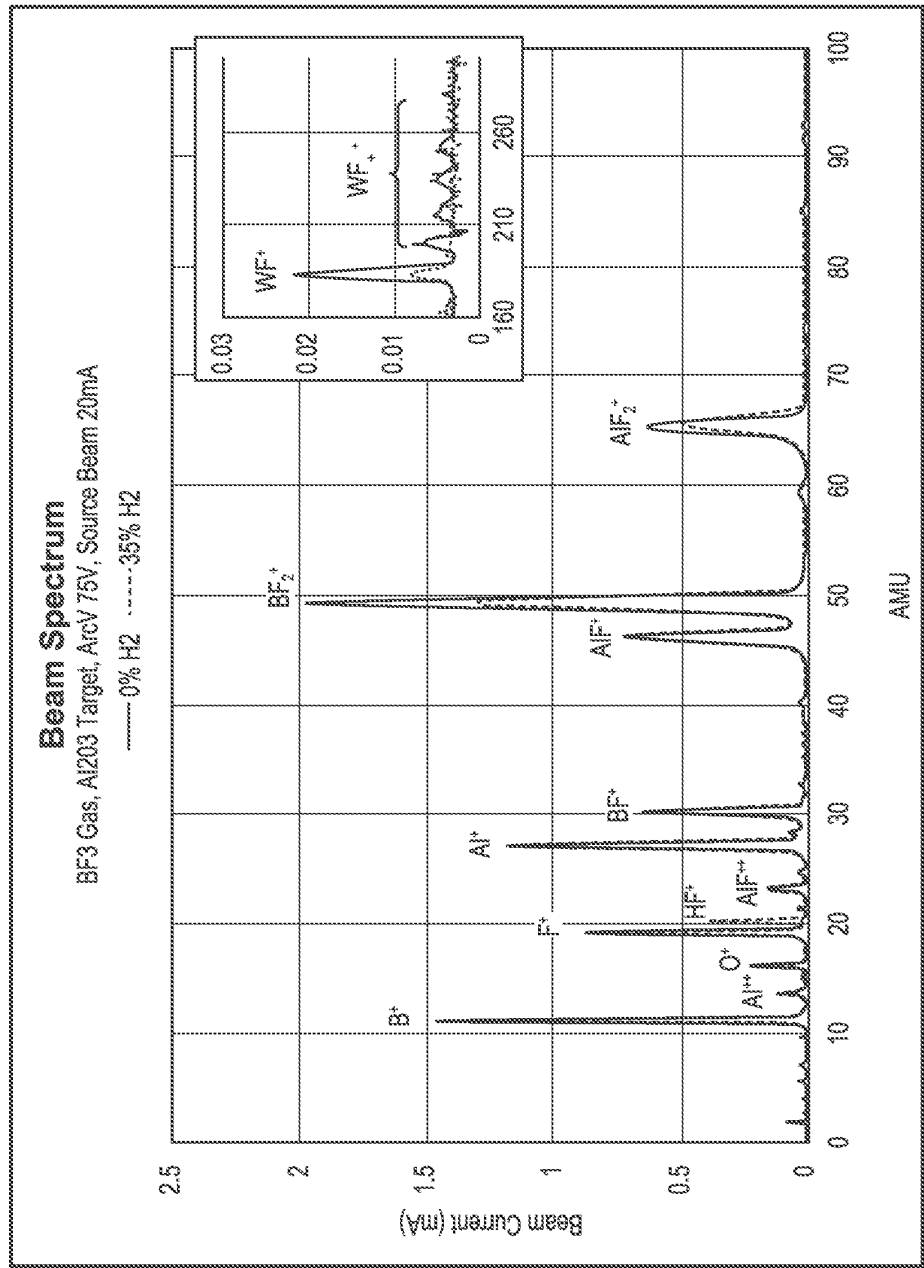


FIG. 18

W+ Beam – BF3 with H2 Co-flow – Al2O3 Target

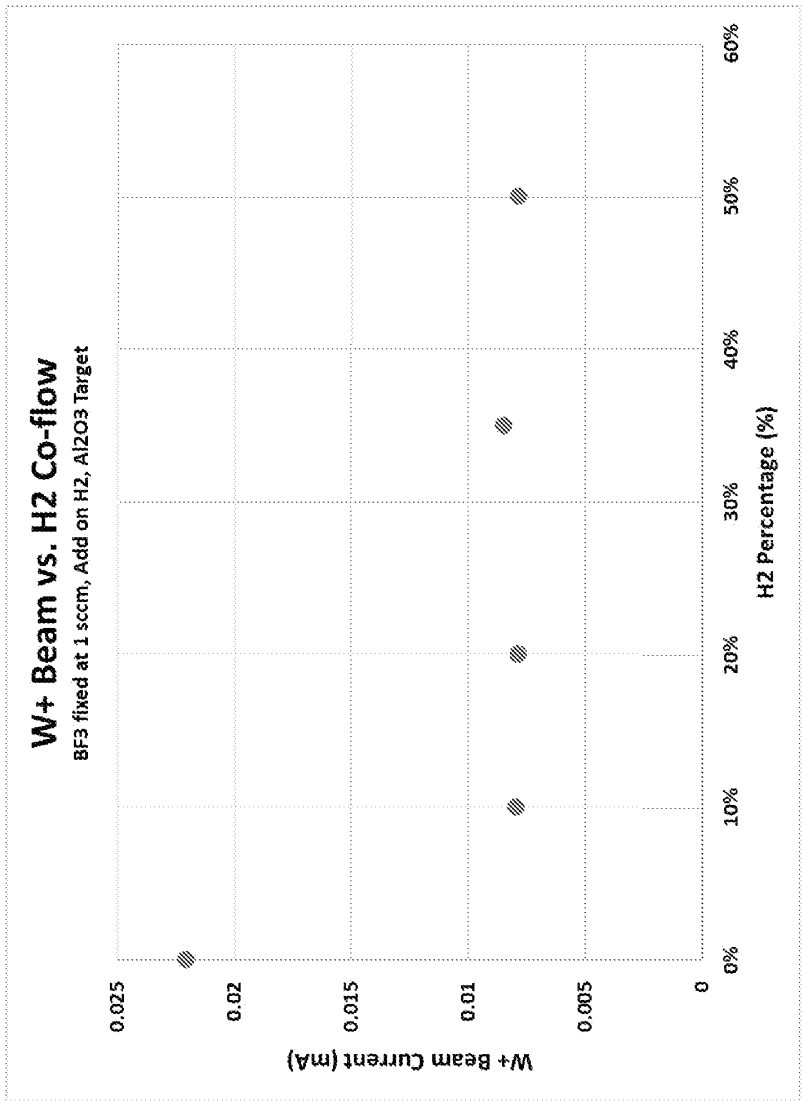


FIG. 19

Cathode Weight Change

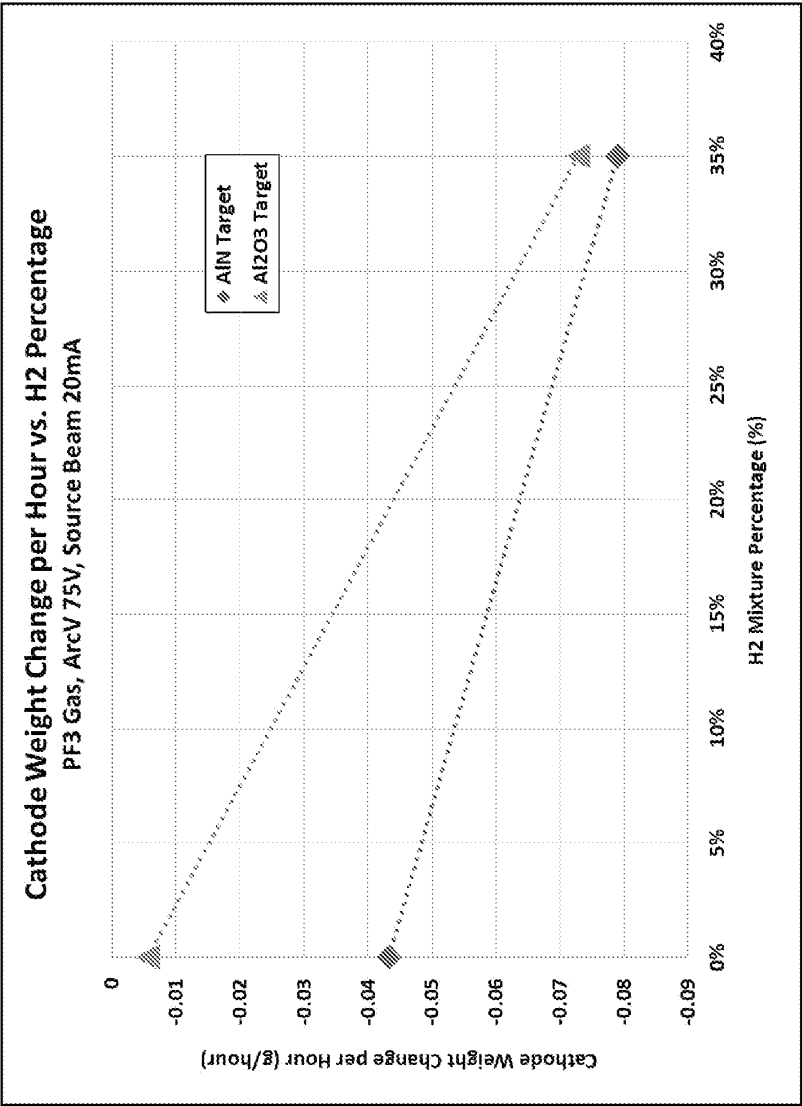


FIG. 20