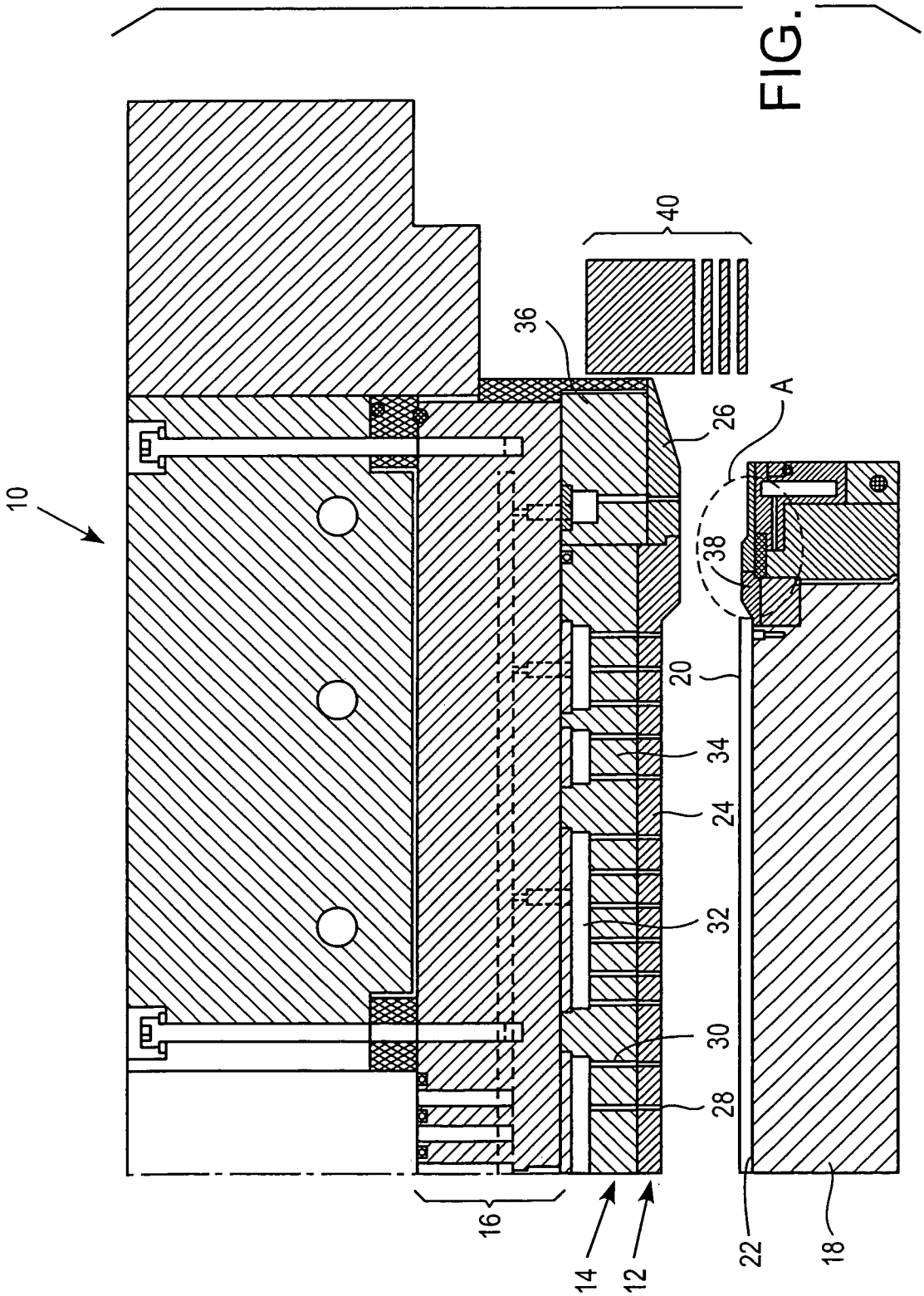
FIG. 1



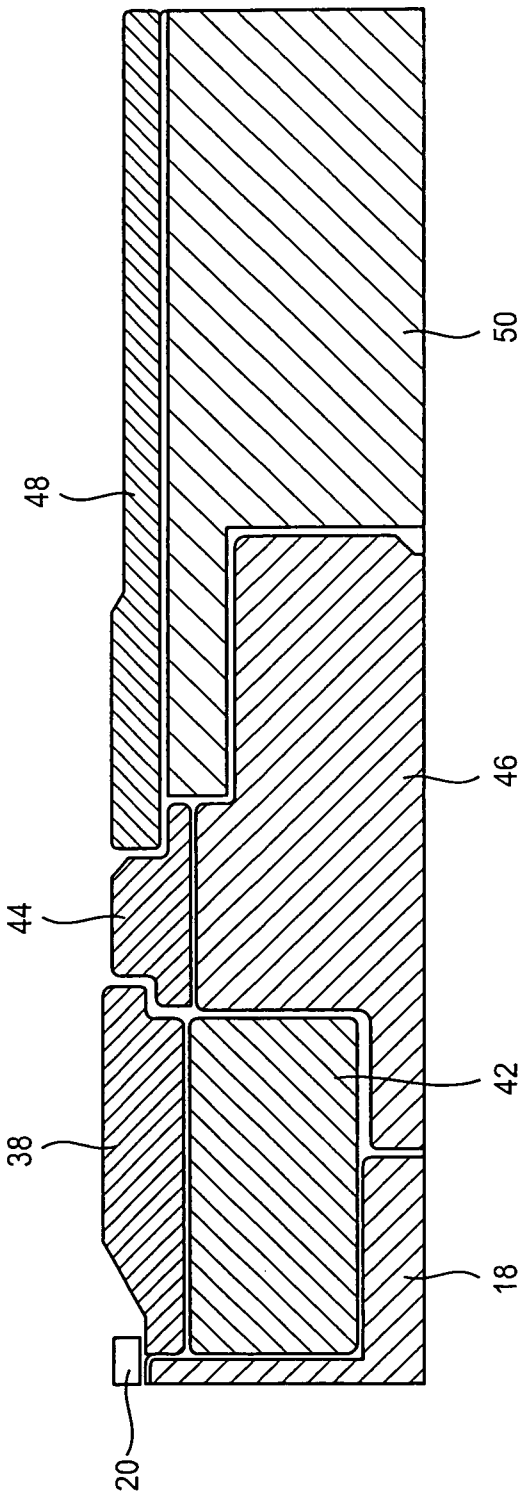


FIG. 2A

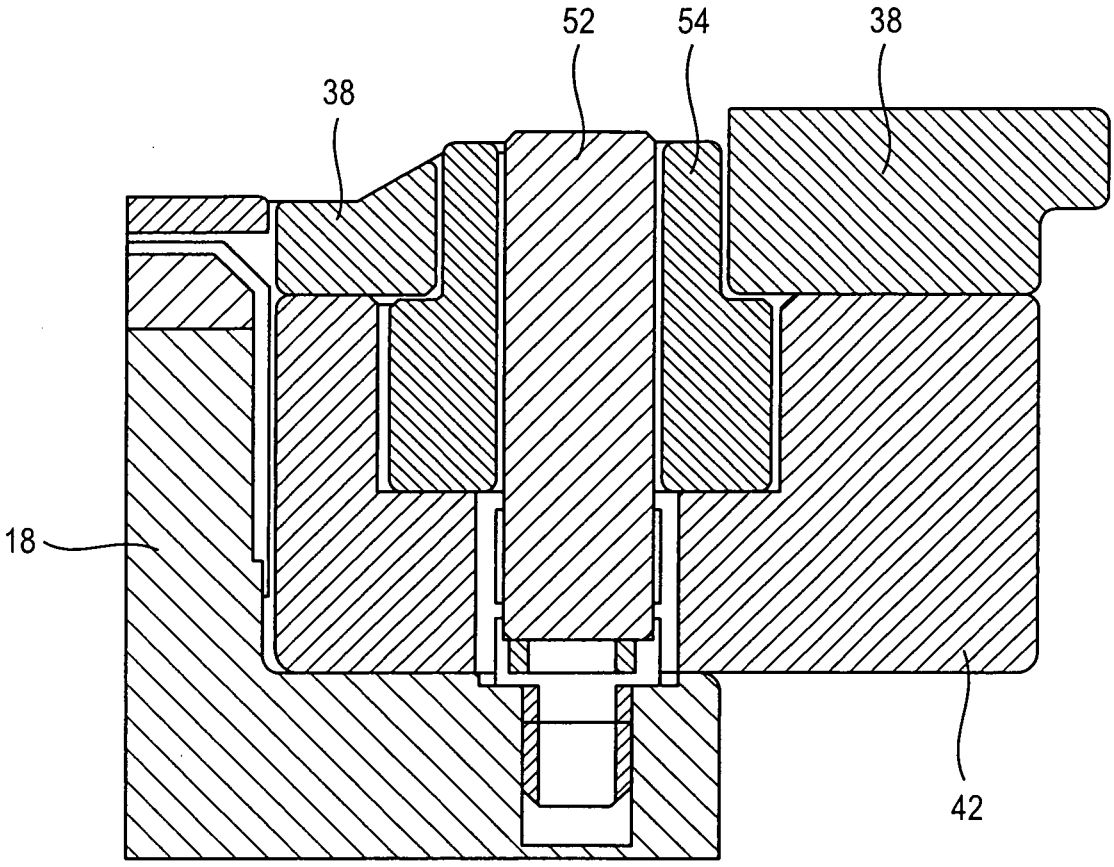


FIG. 2B

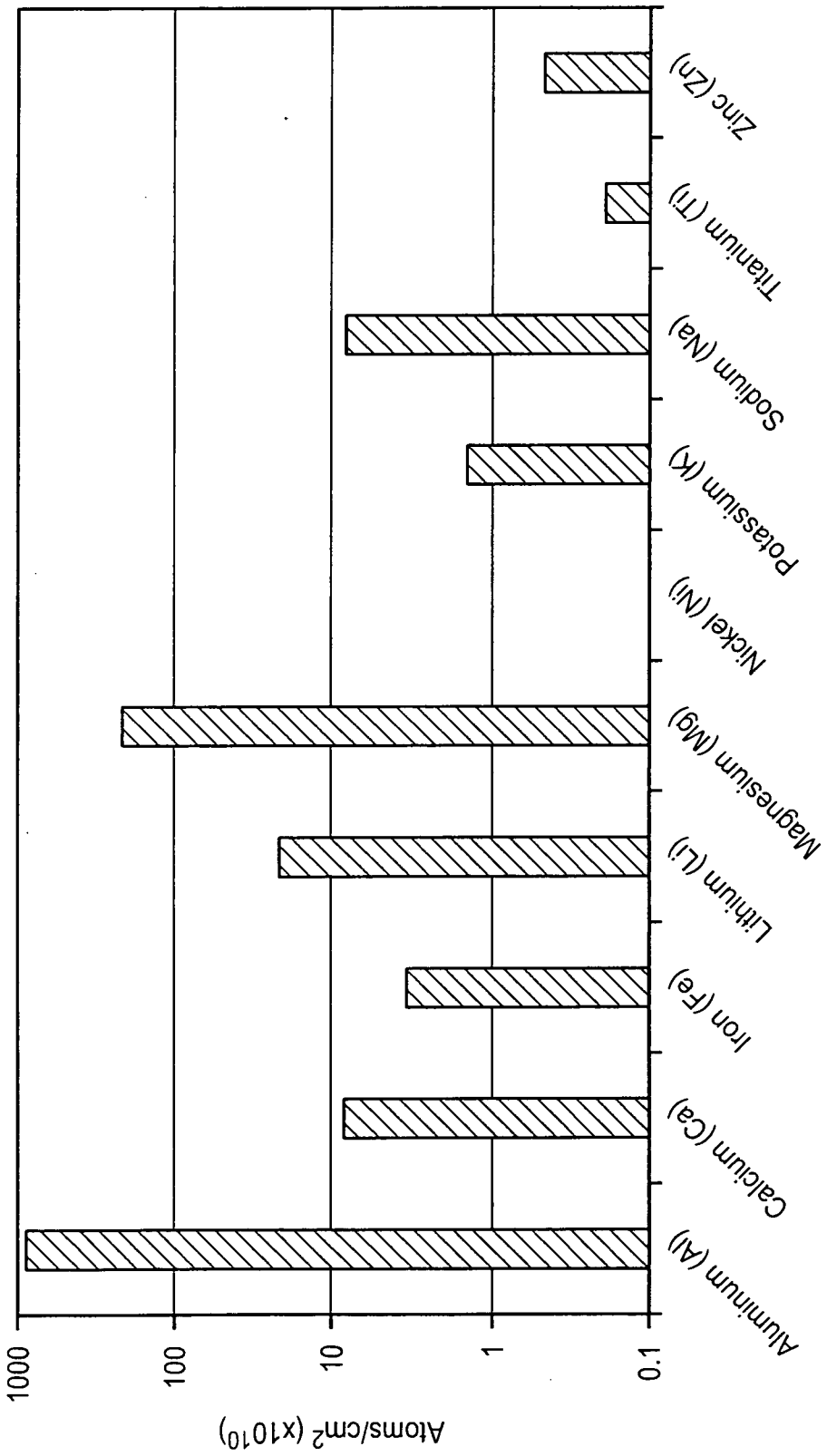

Atoms/cm2 (x1010)
1000
100
10
1
0.1
Aluminum (Al)
Calcium (Ca)
Iron (Fe)
Lithium (Li)
Magnesium (Mg)
Nickel (Ni)
Potassium (K)
Sodium (Na)
Titanium (Ti)
Zinc (Zn)

FIG. 3

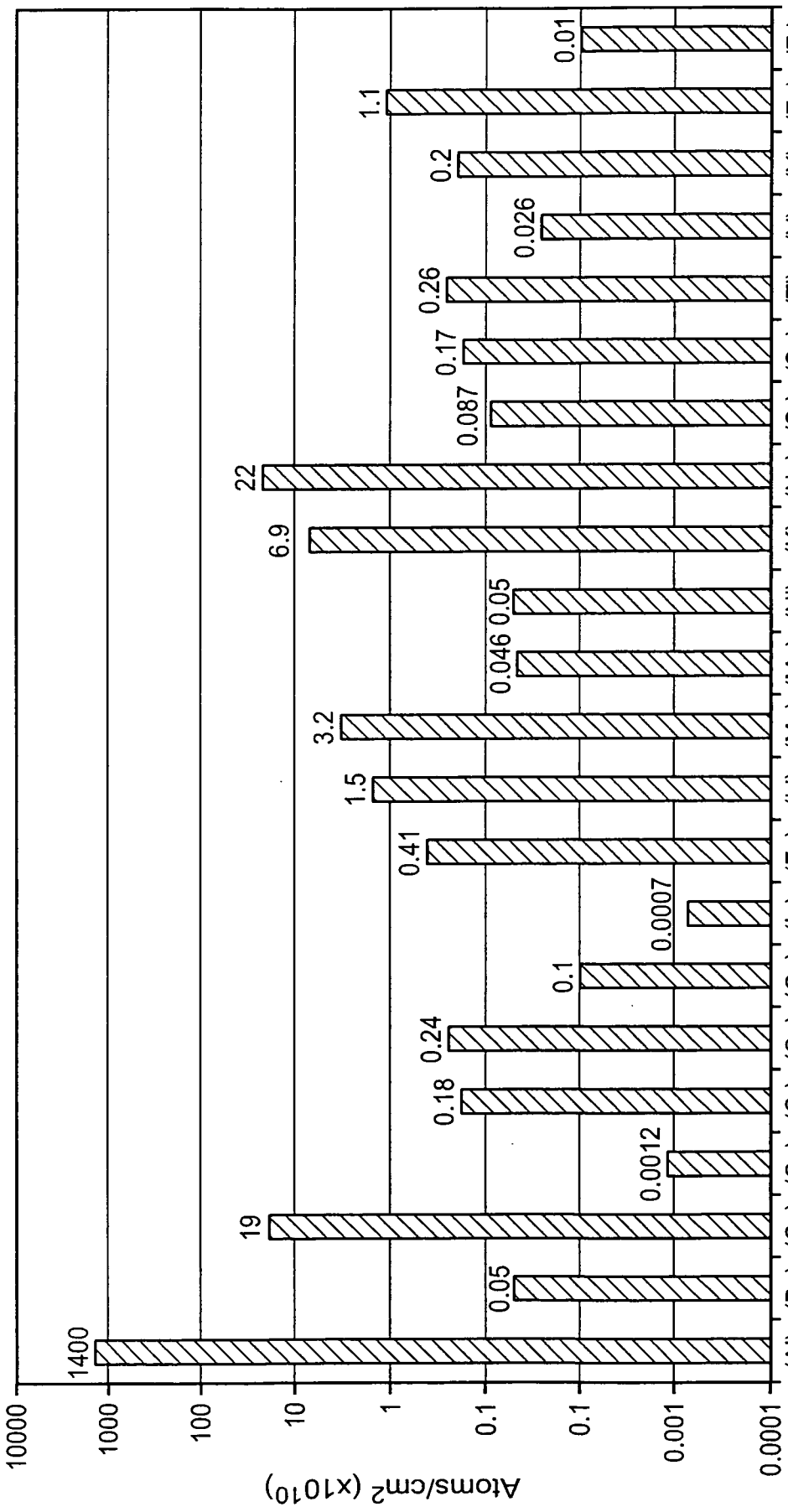

Atoms/cm2 (x1010)
10000
1000
100
10
1
0.1
0.1
0.001
0.0001
(Al) (Ba) (Ca) (Ce) (Cr) (Cu) (Ga) (In) (Fe) (Li) (Mg) (Mn) (Ni) (K) (Na) (Sr) (Sn) (Ti) (V) (Y) (Zn) (Zr)
1400
0.05
19
0.0012
0.18
0.24
0.1
0.0007
0.41
1.5
3.2
0.046
0.05
6.9
22
0.087
0.17
0.26
0.026
0.2
1.1
0.01

FIG. 4

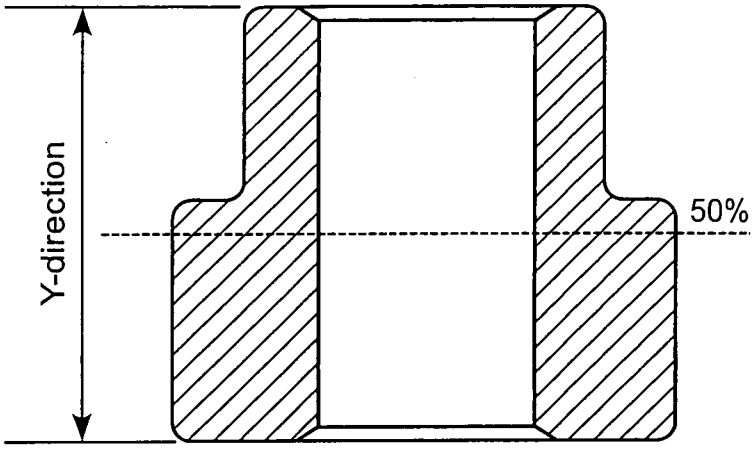

Y-direction
50%

FIG. 5A

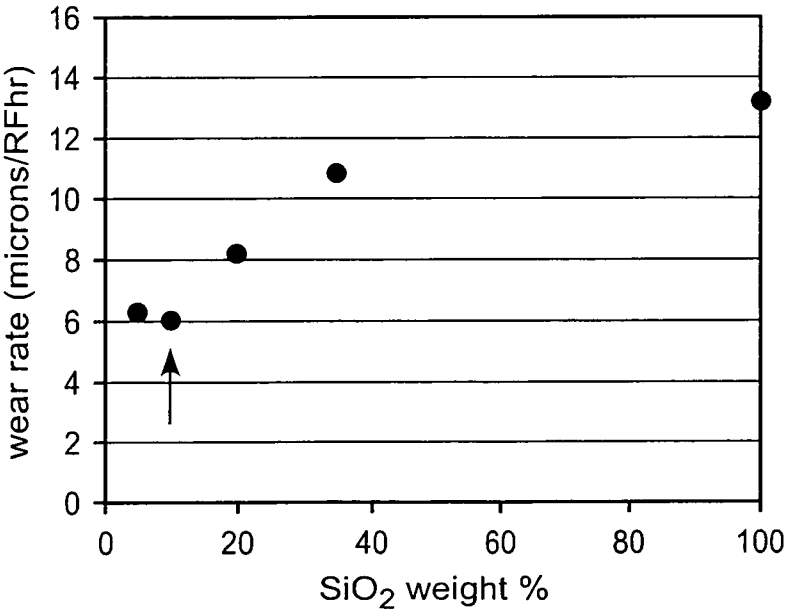

wear rate (microns/RFhr)
16
14
12
10
8
6
4
2
0
0
20
40
60
80
100
SiO2 weight %

FIG. 5B