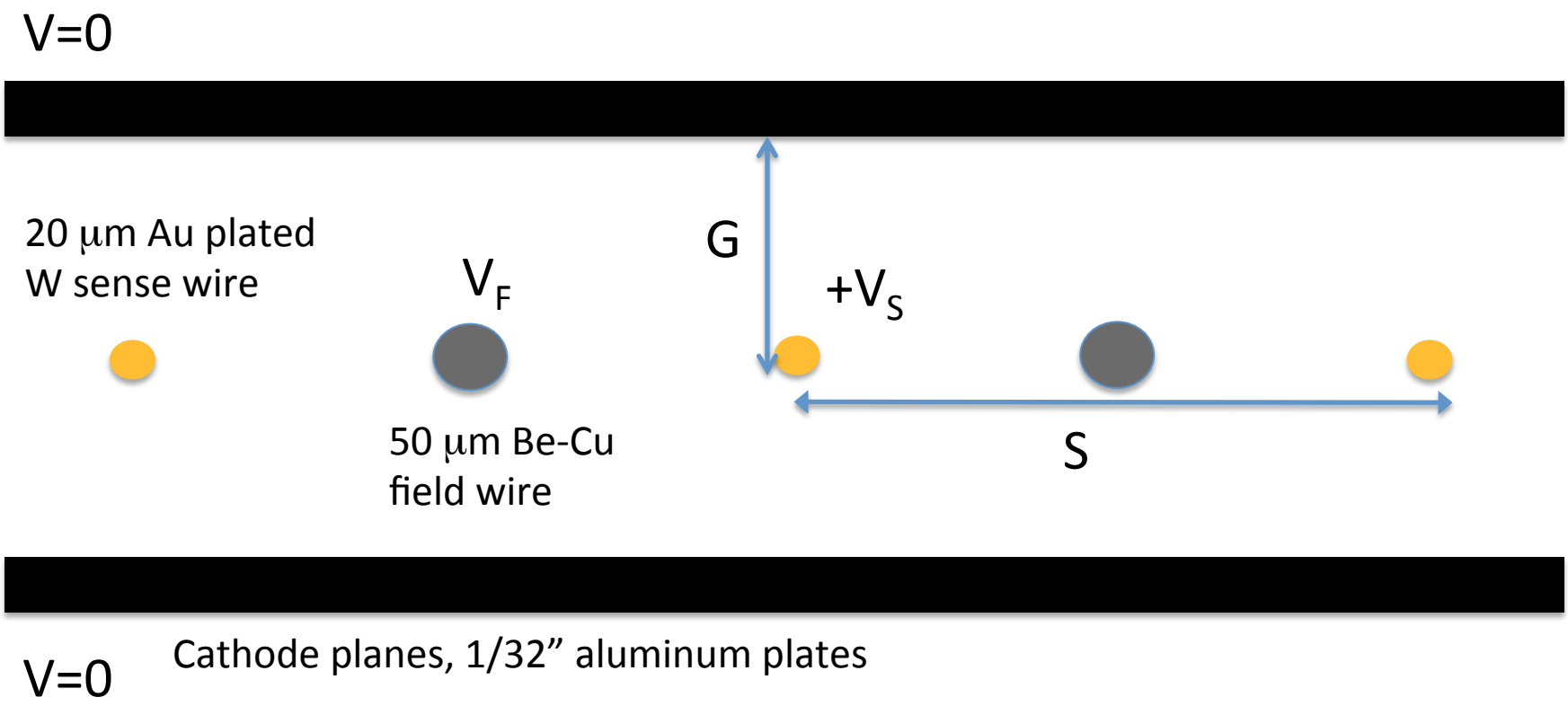
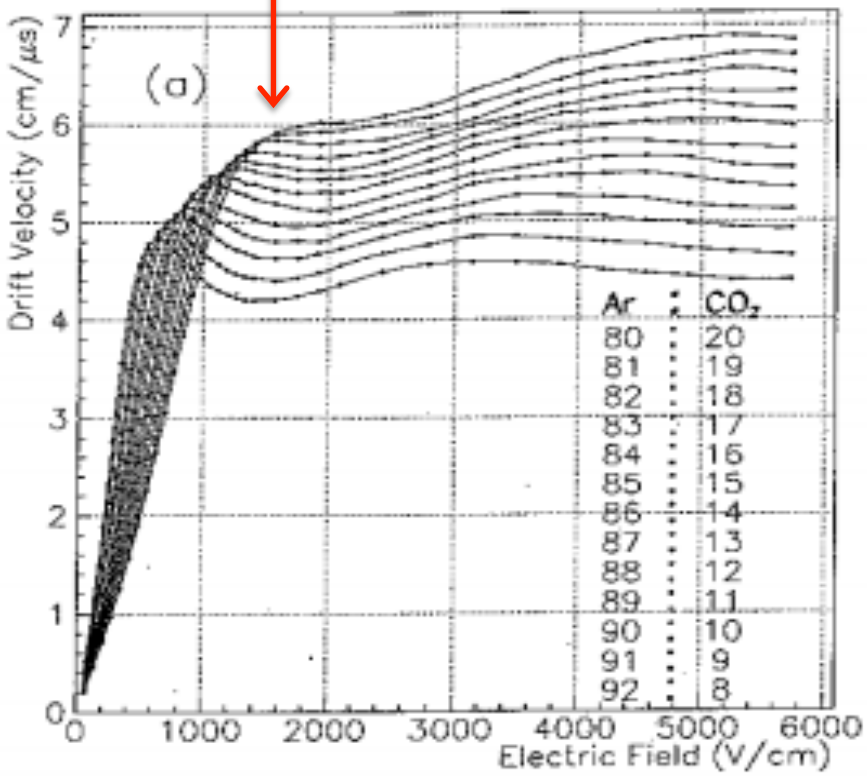
Chamber geometry



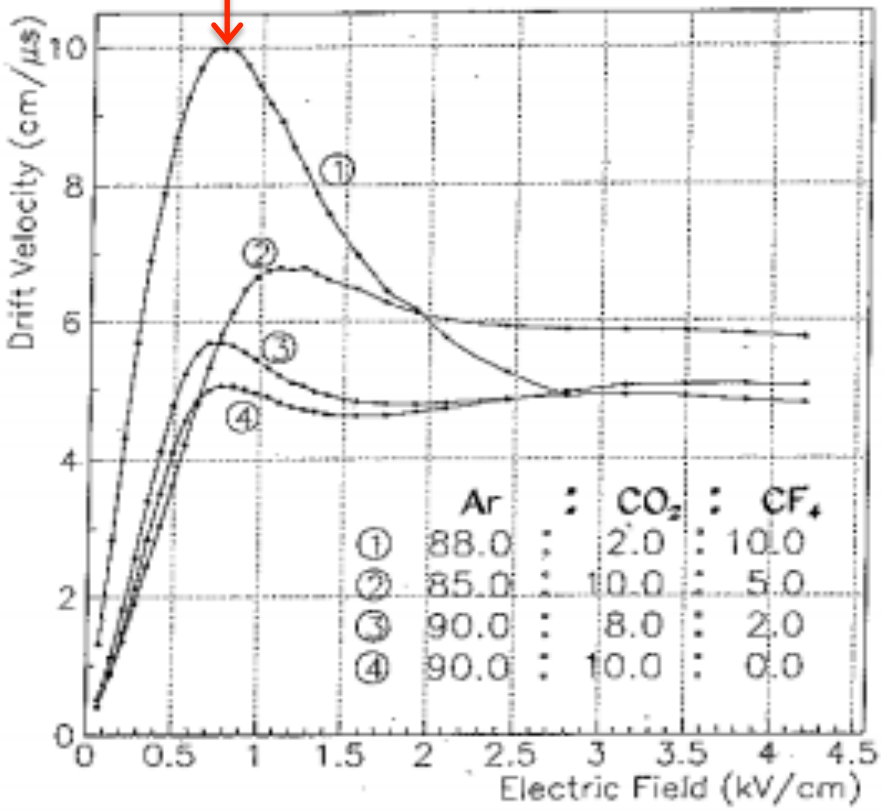
For the designs we've considered so far, S=2G, and V_F=0

Choice of gas and electric field

Ar:CO_2 80:20
6 cm/μs @ 1.5 kV/cm

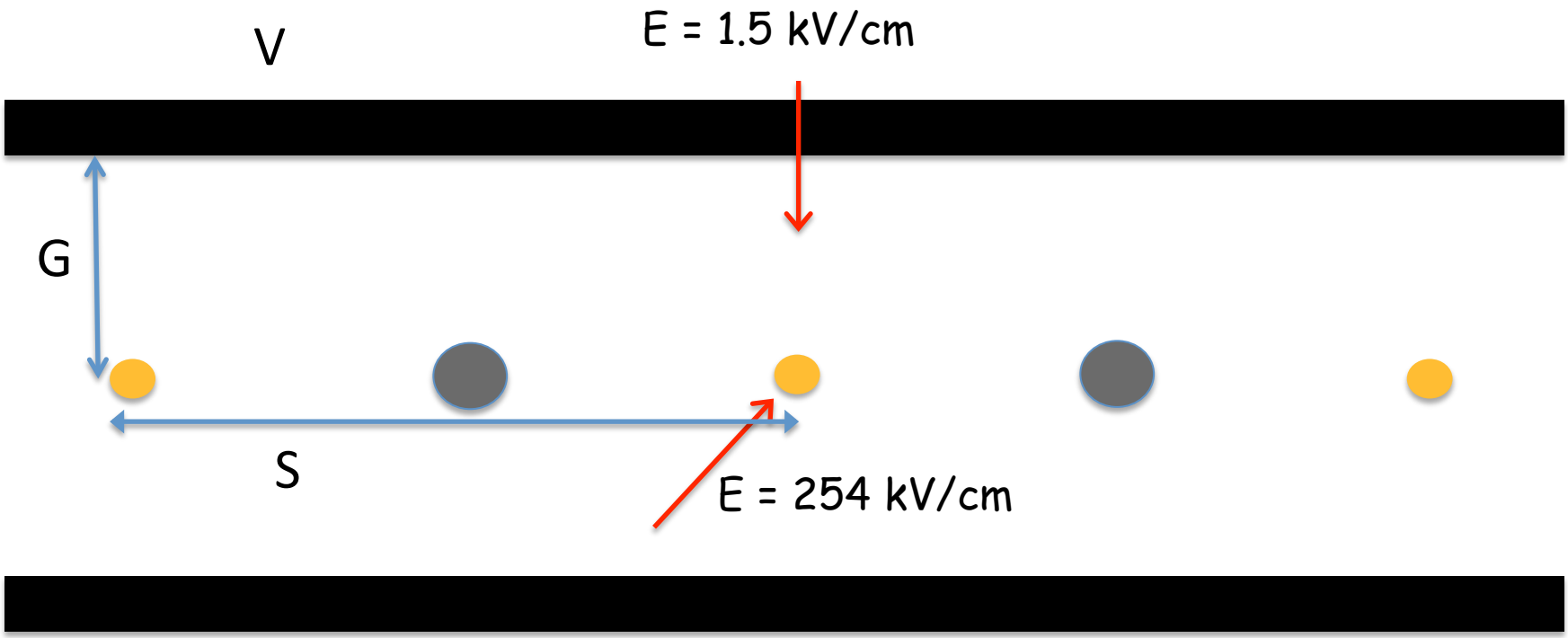


Ar:CO_2:CF_4 88:2:10
10 cm/μs @ .75 kV/cm



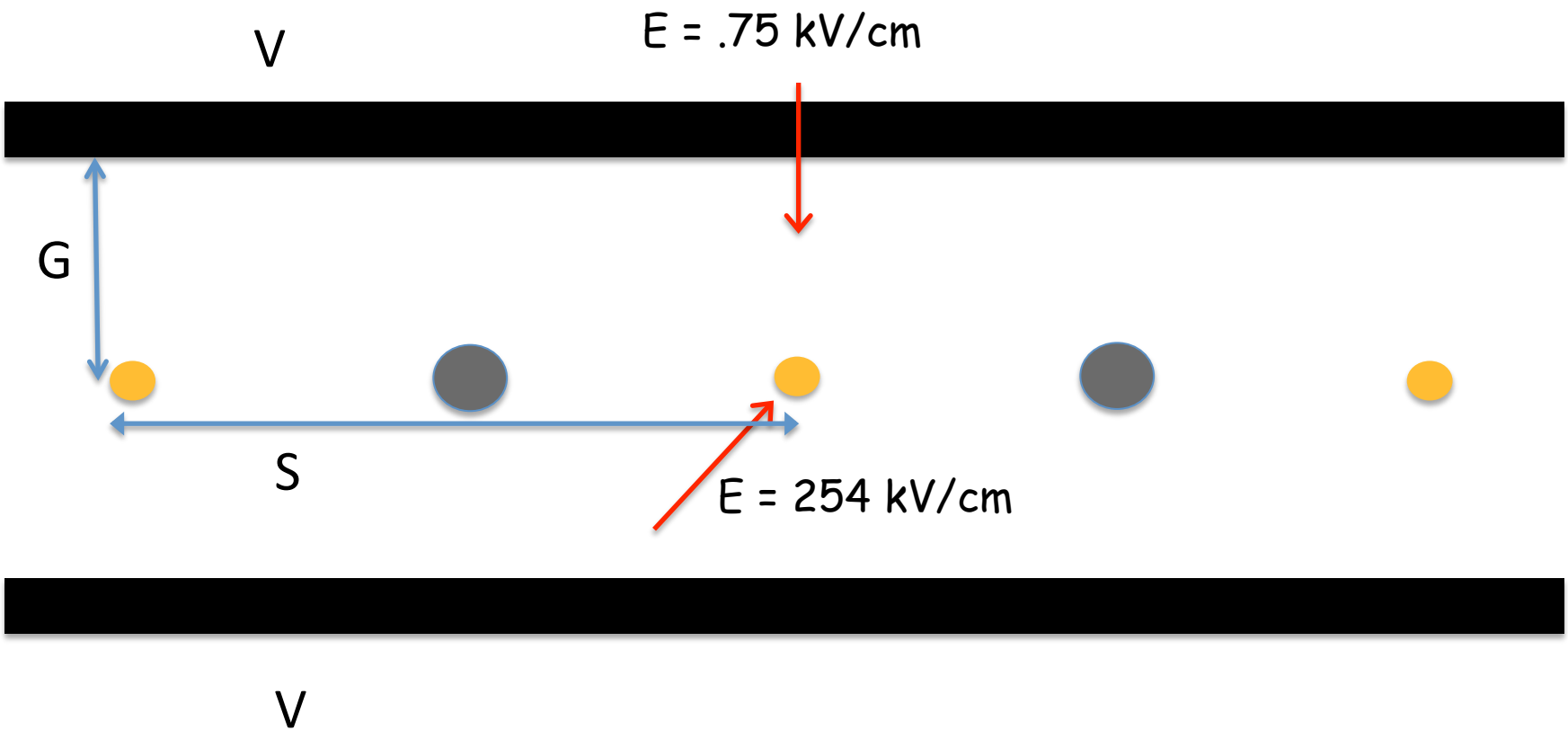
Zhao et al, Nucl. Inst. & Methods, 1993

Optimize size and voltage for $Ar:CO_2$ = 80:20



E = 254 kV/cm corresponds to a gas gain of 10^5

Optimize size and voltage for $Ar:CO_2:CF_4$ = 88:2:10



E = 254 kV/cm corresponds to a gas gain of 10^5

S cm	G cm	V_S	V_F	V cathode
2	1	1830	0	344
1	1	1880	0	530
1	1	2050	500	750