It is first results of software simulation using GAFFIELD program.

Part 1

Planes: x = -2.25 cm, x = 2.25 cm, y = -2.0 cm, y = 2.0 cm.
Dielectricum (position (x_begin,x_end)): x(-2.25,-2.0), x(2.0,2.25).
Anodes wires (name wire Sx, position wire (x,y), wire voltage $U_{sx}$, wire diameter):
S1(-1.5,1.5), S2(-0.5,1.5), S3(0.5,1.5), S4(1.5,1.5)
$U_{s1} = U_{s2} = U_{s3} = U_{s4} = 9000$ V,
diameter = 0.0020 cm
Contours distribution potential

Contours distribution E field

2D distribution E field by the all area on X and Y axis

Projection on X axis

Projection on Y axis
2D distribution E field
in area X(-1.5:1.5), Y(-2.5:1.1)

Projection on X axis

Projection on Y axis

2D distribution electrons drift velocity
in area X(-2.0:2.0), Y(-2.0:2.0)

Track, Clusters(green), Electrons drift lines (red), Ions drift lines (brown)
Part 2

**Planes:** x = -2.25 cm, x = 2.25 cm, y = -2.0 cm, y = 2.0 cm.

**Dielectricum** (position \((x_{\text{begin}},x_{\text{end}})\)): \((-2.25,-2.0), (2.0,2.25)\)

**Anodes wires** (name wire \(Sx\), position wire \((x,y)\), wire voltage \(U_{sx}\), wire diameter):
- \(S1(-1.5,1.5), S2(-0.5,1.5), S3(0.5,1.5), S4(1.5,1.5)\)
- \(U_{s1} = U_{s2} = U_{s3} = U_{s4} = 9000 \text{ V}\) diameter = 0.0020 cm

**Field wires** (name wire \(Cx\), position wire \((x,y)\), wire voltage \(U_{cx}\), wire diameter):
- \(C1(-1.9,1.0), C2(-1.9,0.5), C3(-1.9,0.0), C4(-1.9,0.5), C5(-1.9,1.0), C6(-1.9,1.5)\)
- \(C7(1.9,1.0), C8(1.9,0.5), C9(1.9,0.0), C10(1.9,0.5), C11(1.9,1.0), C12(1.9,1.5)\)
- \(U_{c1} = U_{c7} = 5200 \text{ V}, U_{c2} = U_{c8} = 4200 \text{ V}, U_{c3} = U_{c9} = 3300 \text{ V},\)
- \(U_{c4} = U_{c9} = 2600 \text{ V}, U_{c5} = U_{c10} = 1600 \text{ V}, U_{c6} = U_{c12} = 900 \text{ V}\) diameter = 0.0100 cm

![Diagram](image)
Contours distribution potential

Contours distribution E field

2D distribution E field by the all area on X and Y axis

Projection on X axis

Projection on Y axis
2D distribution E field in area X(-1.5:1.5), Y(-2.5:1.1)

2D distribution electrons drift velocity in area X(-2.0:2.0), Y(-2.0:2.0)

Track, Clusters(green), Electrons drift lines (red), Ions drift lines (brown)
Part 3

Planes: x = -2.25 cm, x = 2.25 cm, y = -2.0 cm, y = 2.0 cm.

Dielectricum (position (x_begin,x_end)): x(-2.25,-2.0), x(2.0,2.25)

Anodes wires (name wire Sx, position wire (x,y), wire voltage U_{sx}, wire diameter):
S1(-1.5,1.5), S2(-0.5,1.5), S3(0.5,1.5), S4(1.5,1.5)
U_{s1} = U_{s2} = U_{s3} = U_{s4} = 9000 V  
  diameter = 0.0020 cm

Field wires (name wire Cx, position wire (x,y), wire voltage U_{cx}, wire diameter):
C1(-1.9,1.0), C2(-1.9,0.5), C3(-1.9,0.0), C4(-1.9,0.5), C5(-1.9,1.0), C6(-1.9,1.5)
C7(1.9,1.0), C8(1.9,0.5), C9(1.9,0.0), C10(1.9,0.5), C11(1.9,1.0), C12(1.9,1.5)
U_{c1} = U_{c7} = 5200 V,  U_{c2} = U_{c8} = 4200 V,  U_{c3} = U_{c9} = 3300 V,
U_{c4} = U_{c9} = 2600 V,  U_{c5} = U_{c10} = 1600 V,  U_{c6} = U_{c12} = 900 V  
  diameter = 0.0100 cm

Field wires (name wire Fx, position wire (x,y), wire voltage U_{fx}, wire diameter):
F1(-2.0,1.5), F2(-1.0,1.5), F3(0.0,1.5), F4(1.0,1.5), F5(2.0,1.5)
U_{f1} = U_{f2} = U_{f3} = U_{f4} = U_{f5} = 4000 V  
  diameter = 0.0100 cm
Contours distribution potential

Contours distribution E field
2D distribution E field
by the all area on X and Y axis

2D distribution E field
in area X(-1.5:1.5), Y(-2.5:1.1)

Projection on X axis

Projection on Y axis
2D distribution electrons drift velocity in area X(-2.0:2.0), Y(-2.0:2.0)

Track, Clusters (green), Electrons drift lines (red), Ions drift lines (brown)