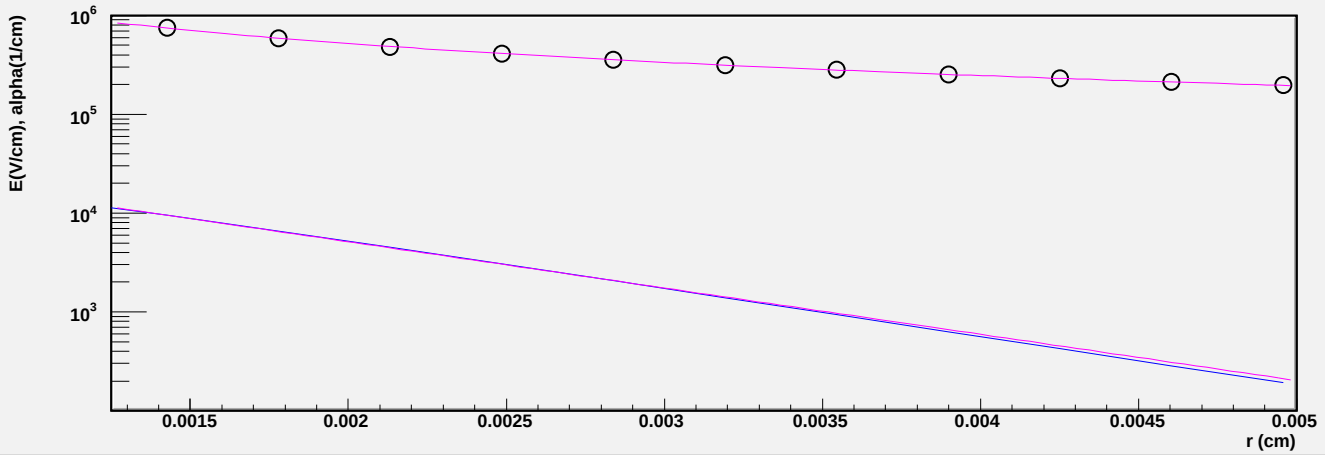
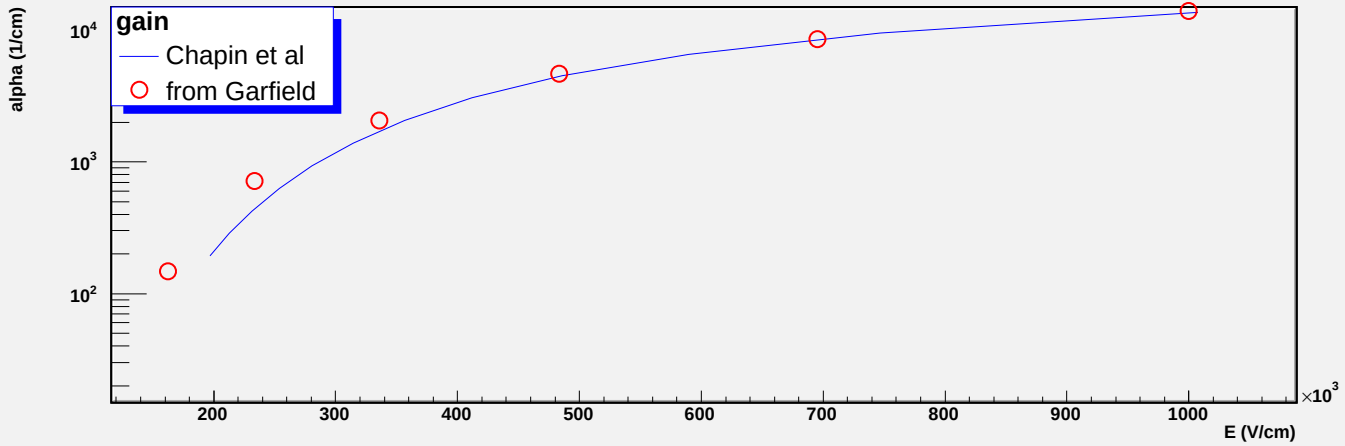
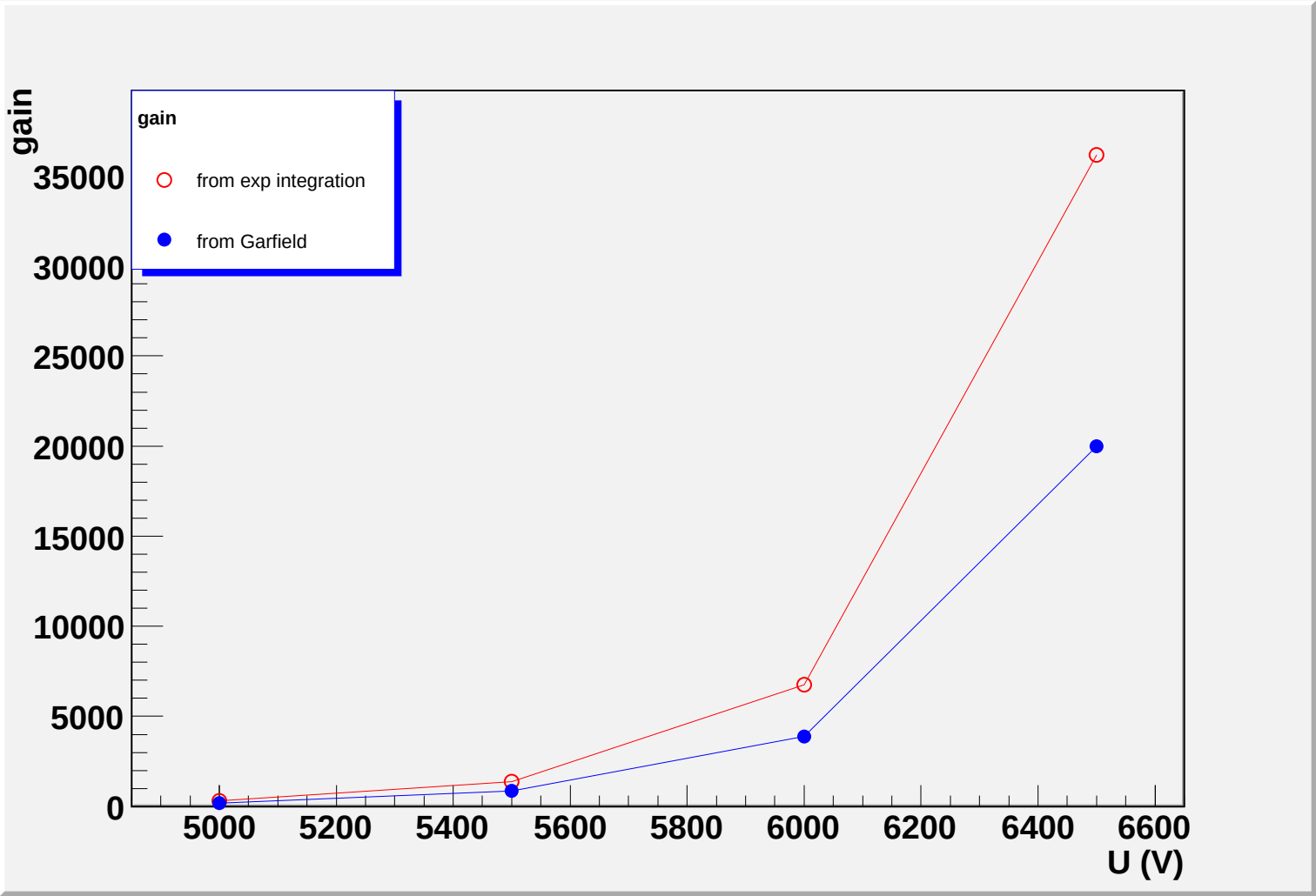
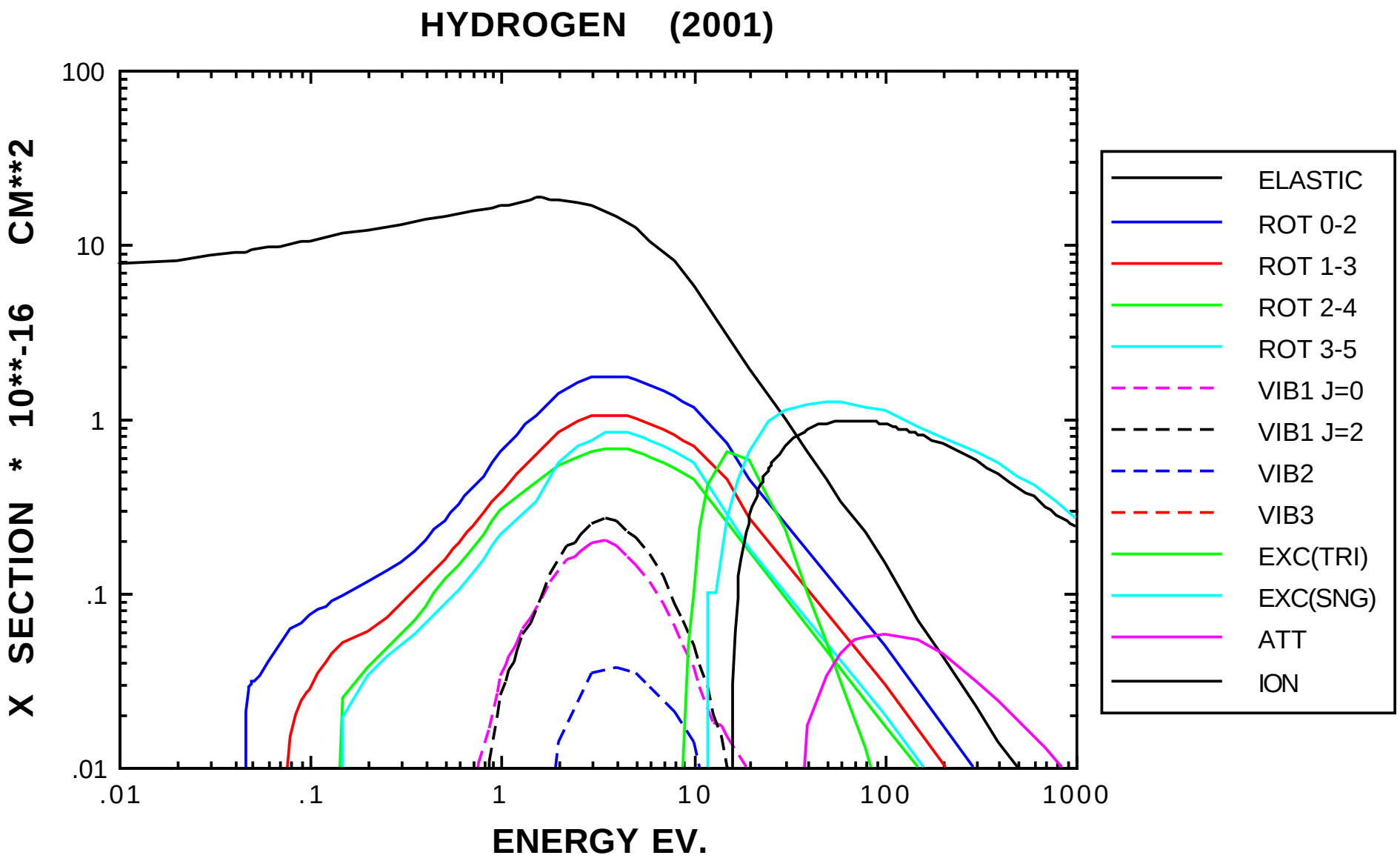
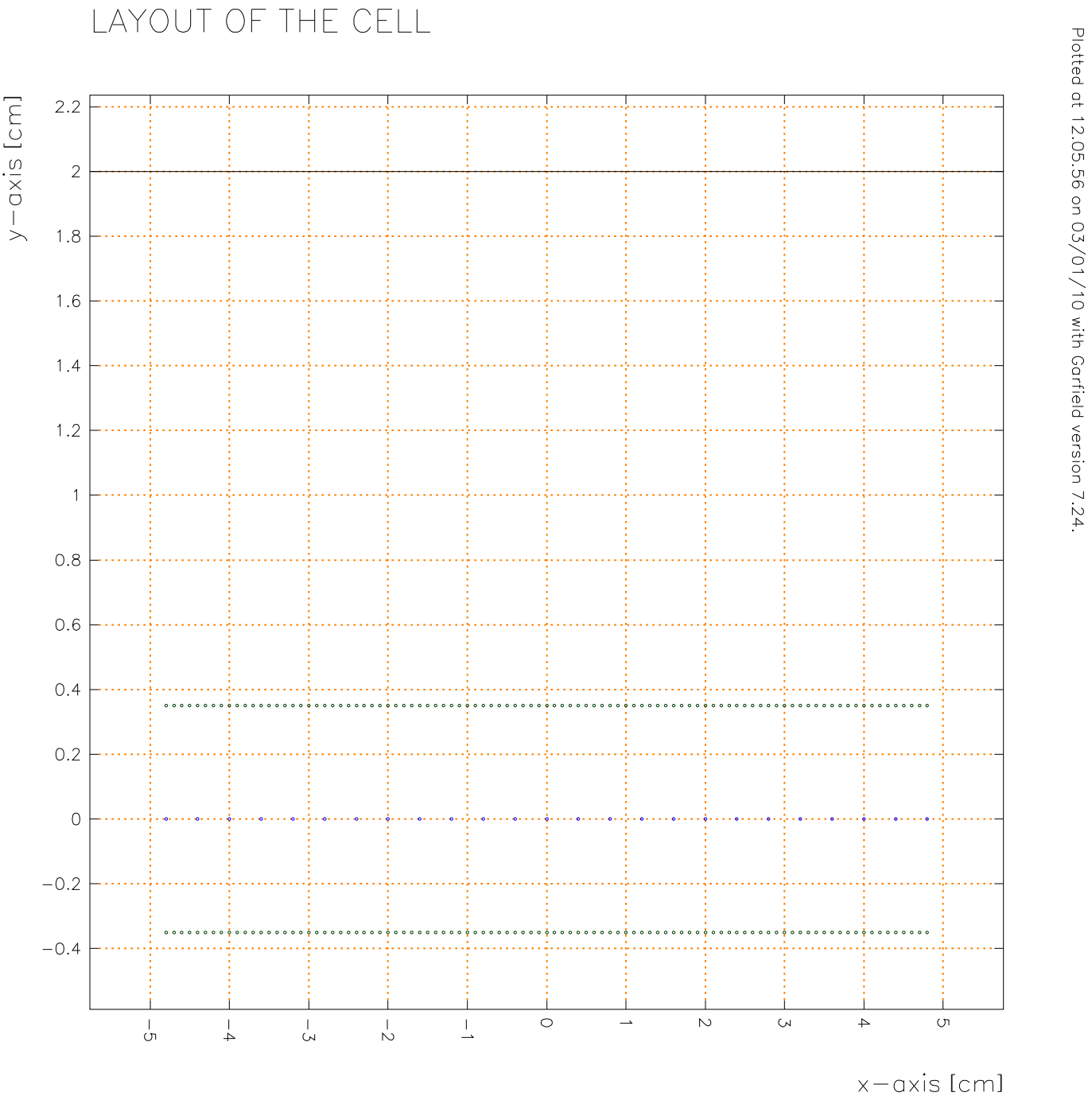

E(V/cm), alpha(1/cm)
10^6
10^5
10^4
10^3
0.0015
0.002
0.0025
0.003
0.0035
0.004
0.0045
0.005
r (cm)

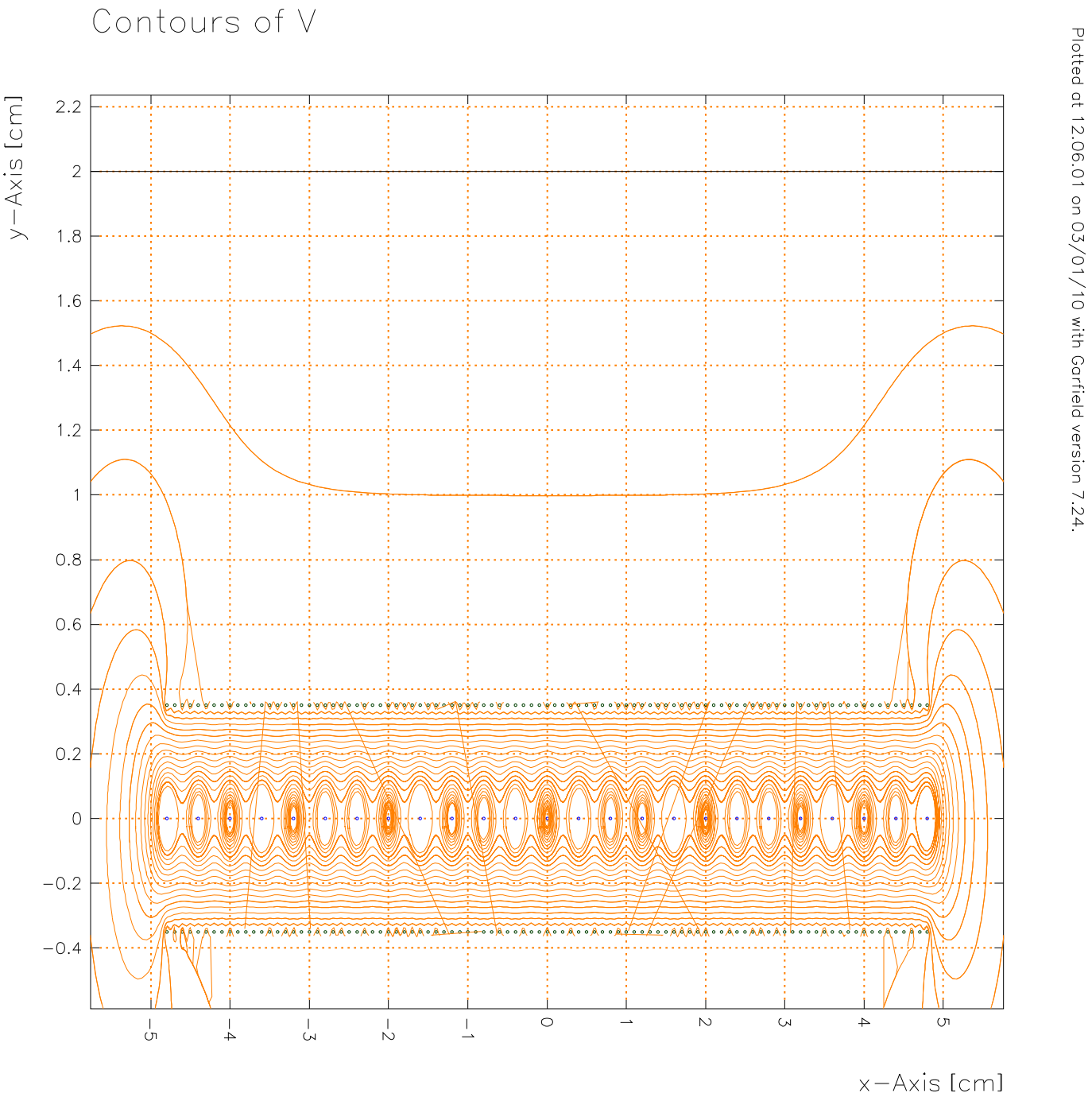

alpha (1/cm)
gain
Chapin et al
from Garfield
10^4
10^3
10^2
200
300
400
500
600
700
800
900
1000
×10^3
E (V/cm)

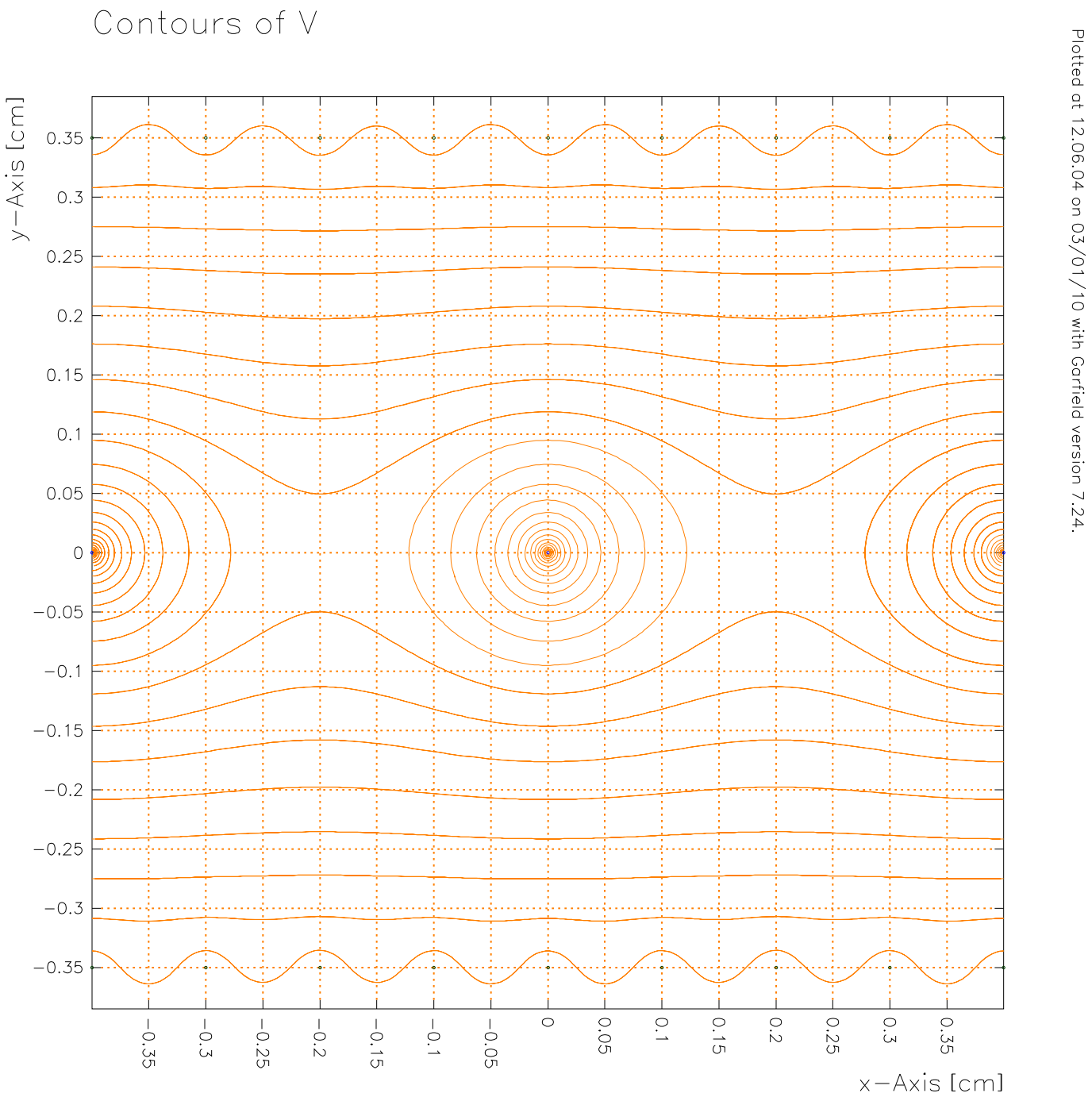

gain
gain
from exp integration
from Garfield
35000
30000
25000
20000
15000
10000
5000
0
5000
5200
5400
5600
5800
6000
6200
6400
6600
U (V)


HYDROGEN (2001)
X SECTION * 10**-16 CM**2
100
10
1
.1
.01
.01
.1
1
10
100
1000
ENERGY EV.
ELASTIC
ROT 0-2
ROT 1-3
ROT 2-4
ROT 3-5
VIB1 J=0
VIB1 J=2
VIB2
VIB3
EXC(TRI)
EXC(SNG)
ATT
ION

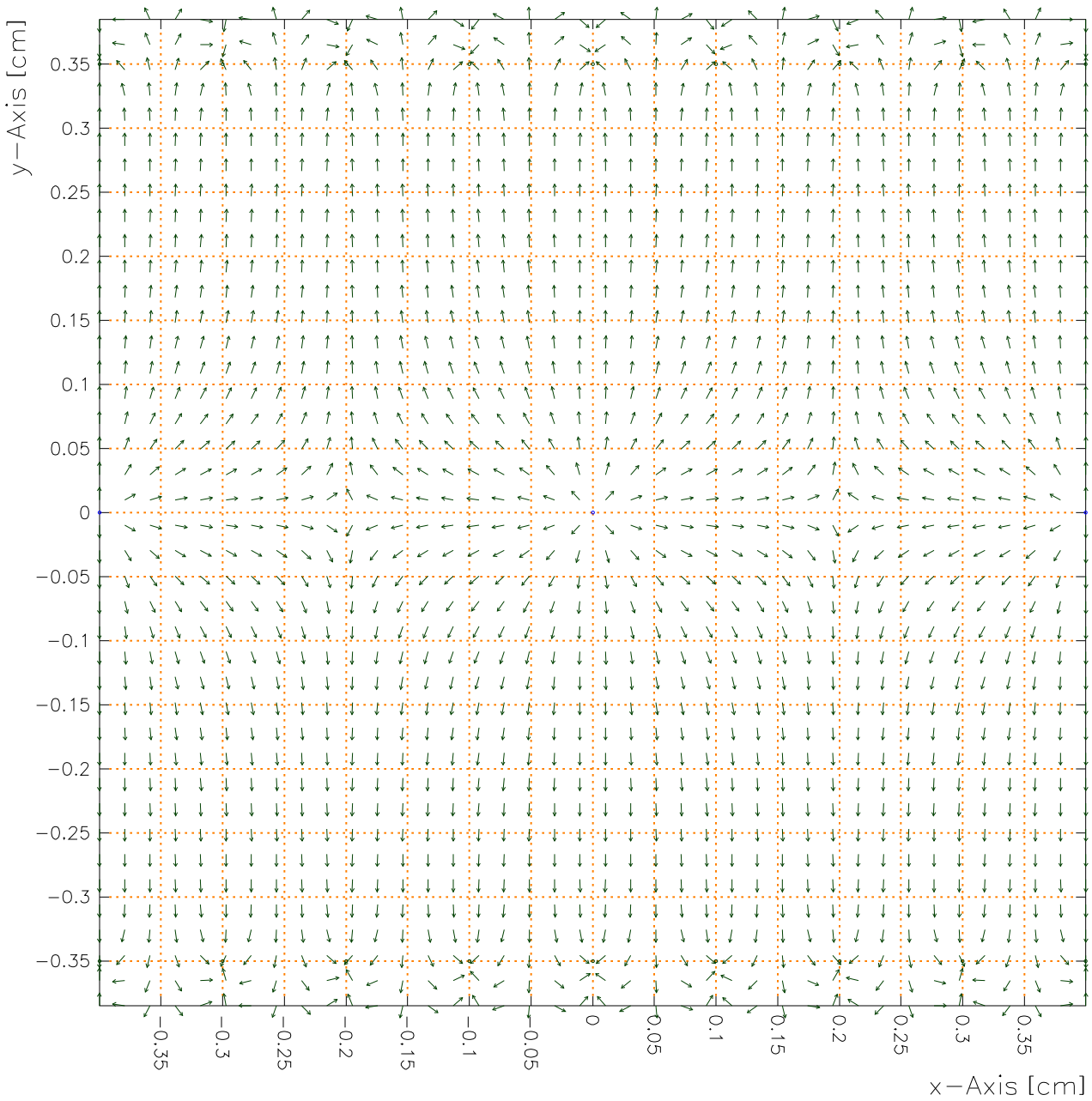
5000 V


LAYOUT OF THE CELL
y−axis [cm]
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−5
−4
−3
−2
−1
0
1
2
3
4
5
x−axis [cm]
Plotted at 12.05.56 on 03/01/10 with Garfield version 7.24.

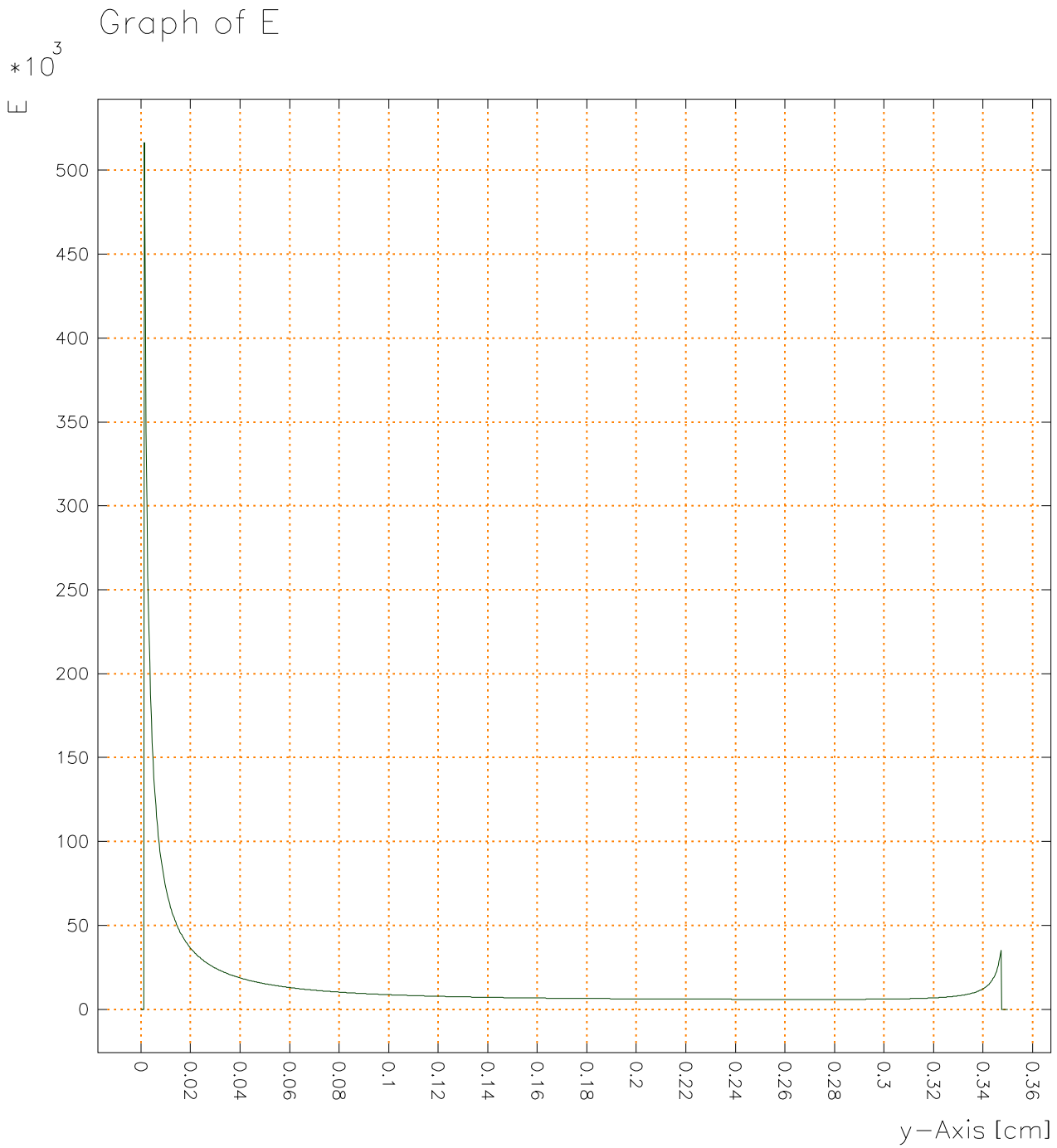

Contours of V
y−Axis [cm]
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−5
−4
−3
−2
−1
0
1
2
3
4
5
x−Axis [cm]
Plotted at 12.06.01 on 03/01/10 with Garfield version 7.24.



Plotted at 12.06.04 on 03/01/10 with Garfield version 7.24.

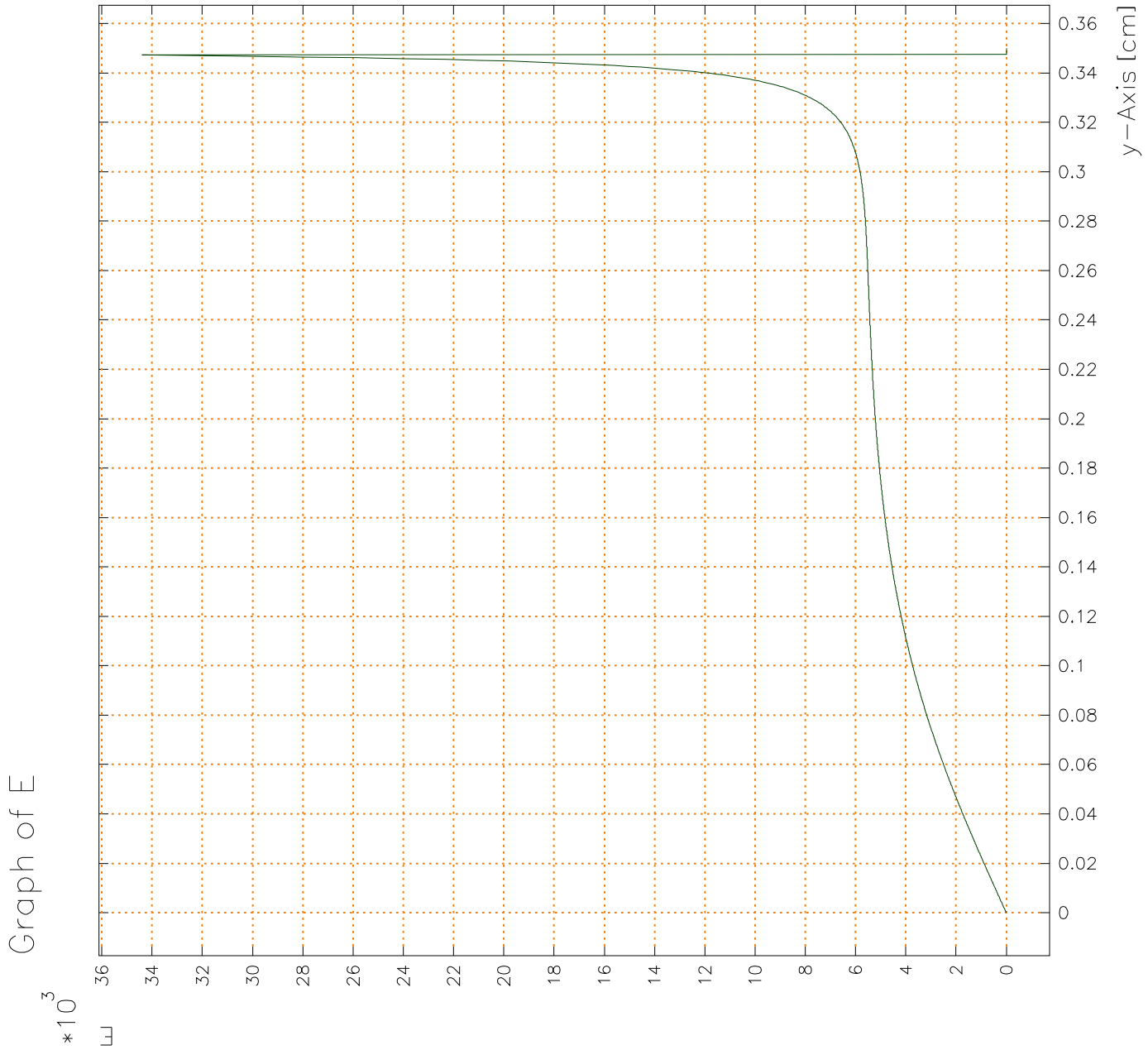


Plotted at 12.06.04 on 03/01/10 with Garfield version 7.24.

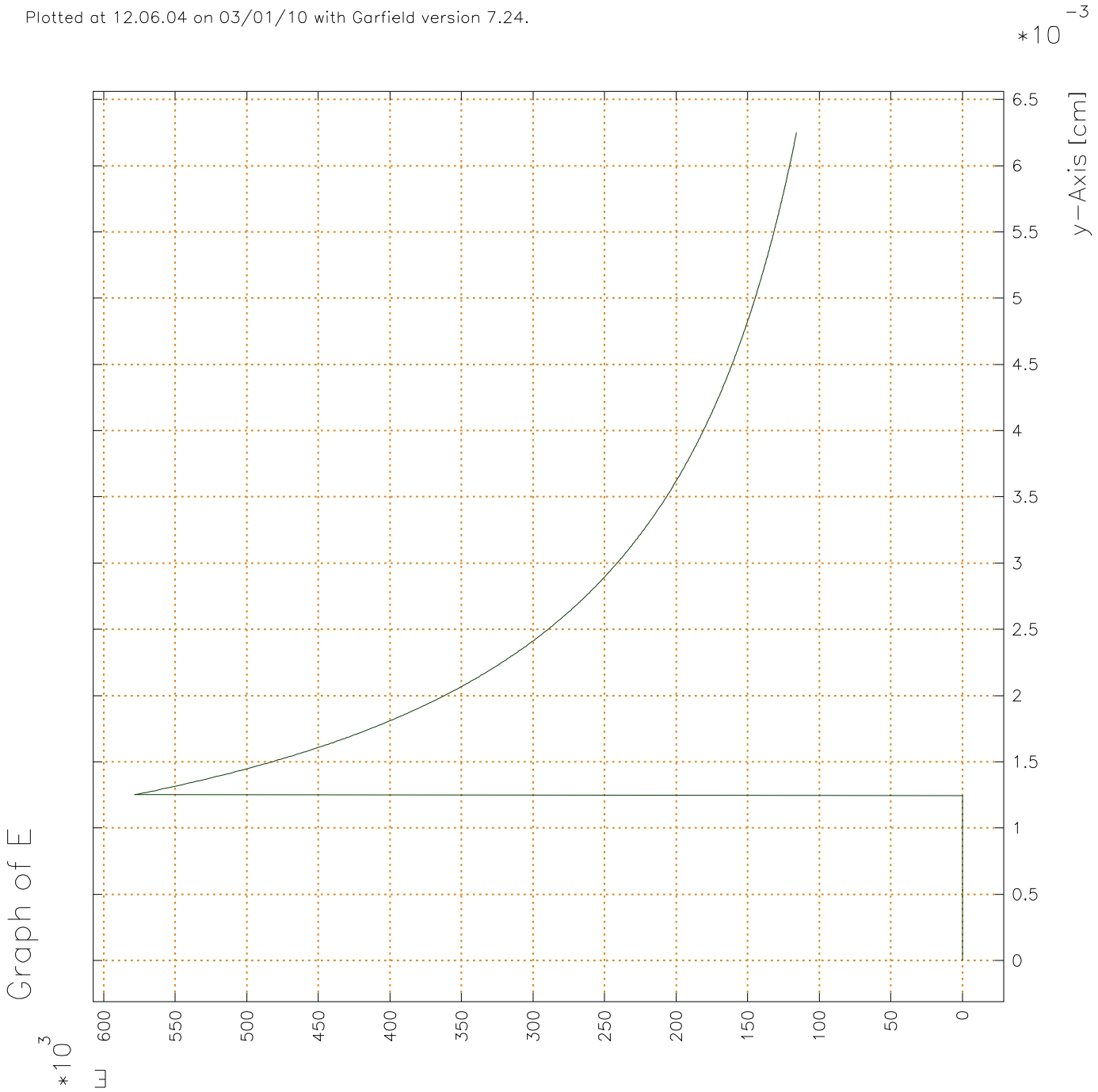


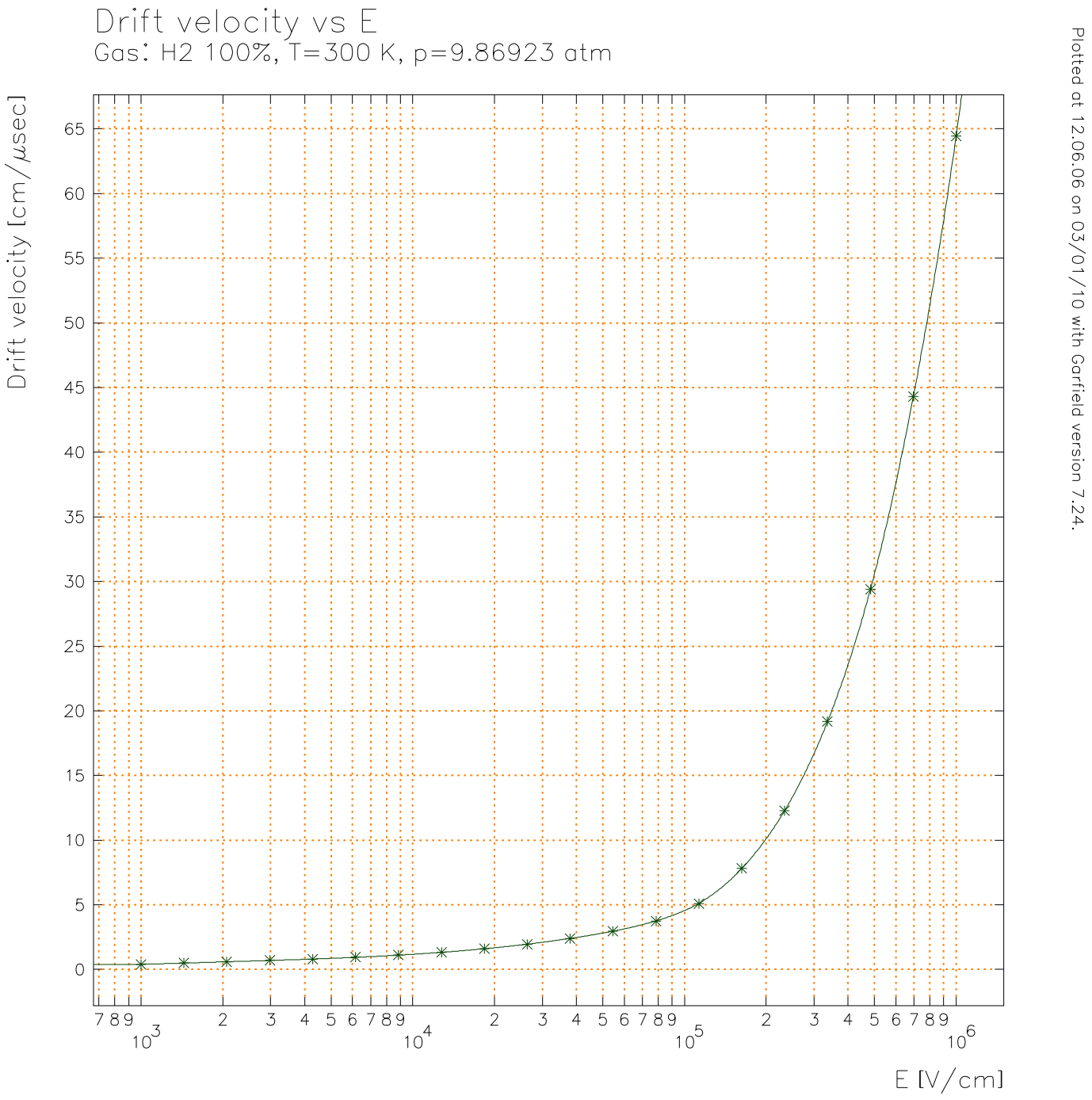
Plotted at 12.06.04 on 03/01/10 with Garfield version 7.24.

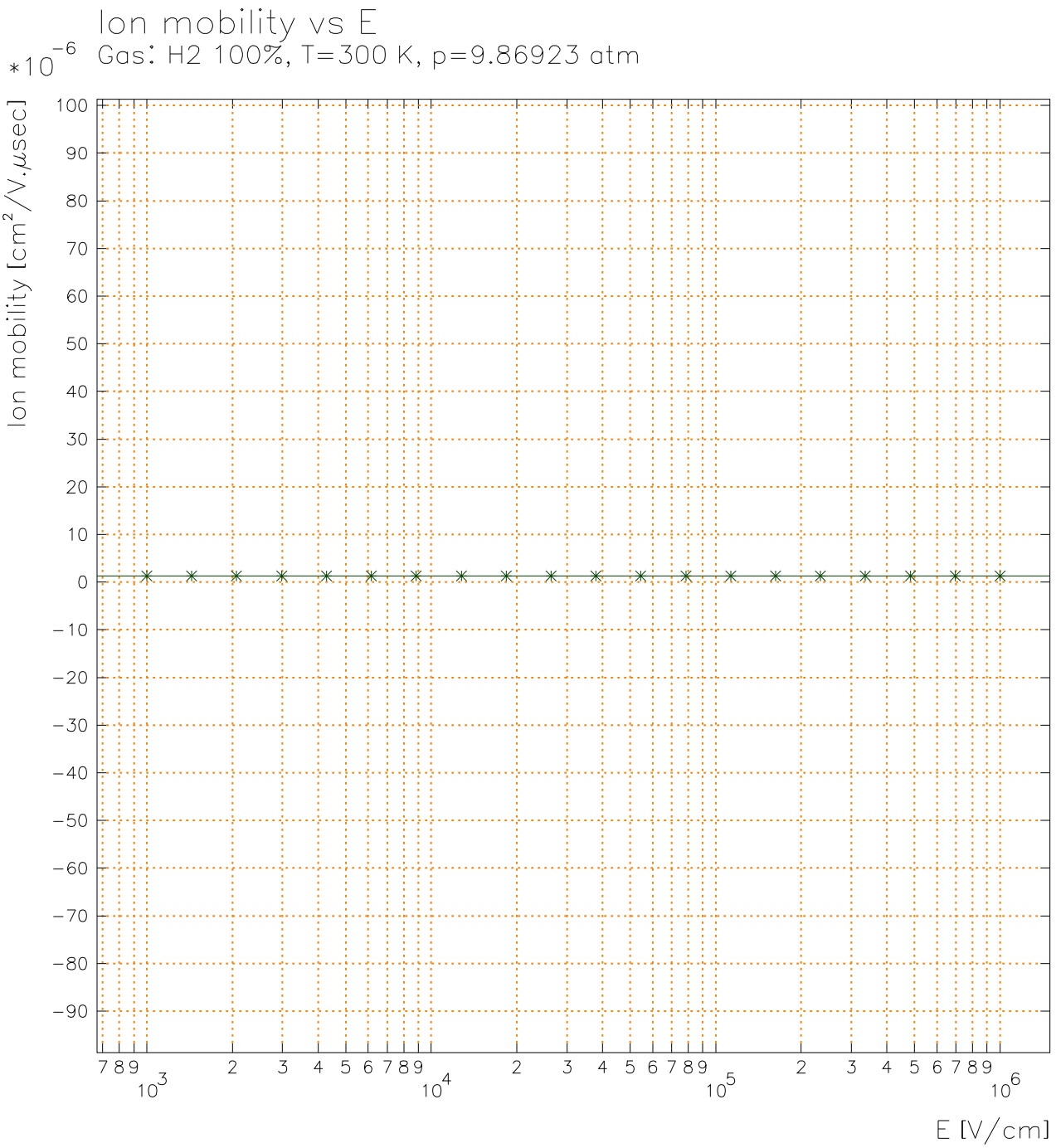
Plotted at 12.06.04 on 03/01/10 with Garfield version 7.24.



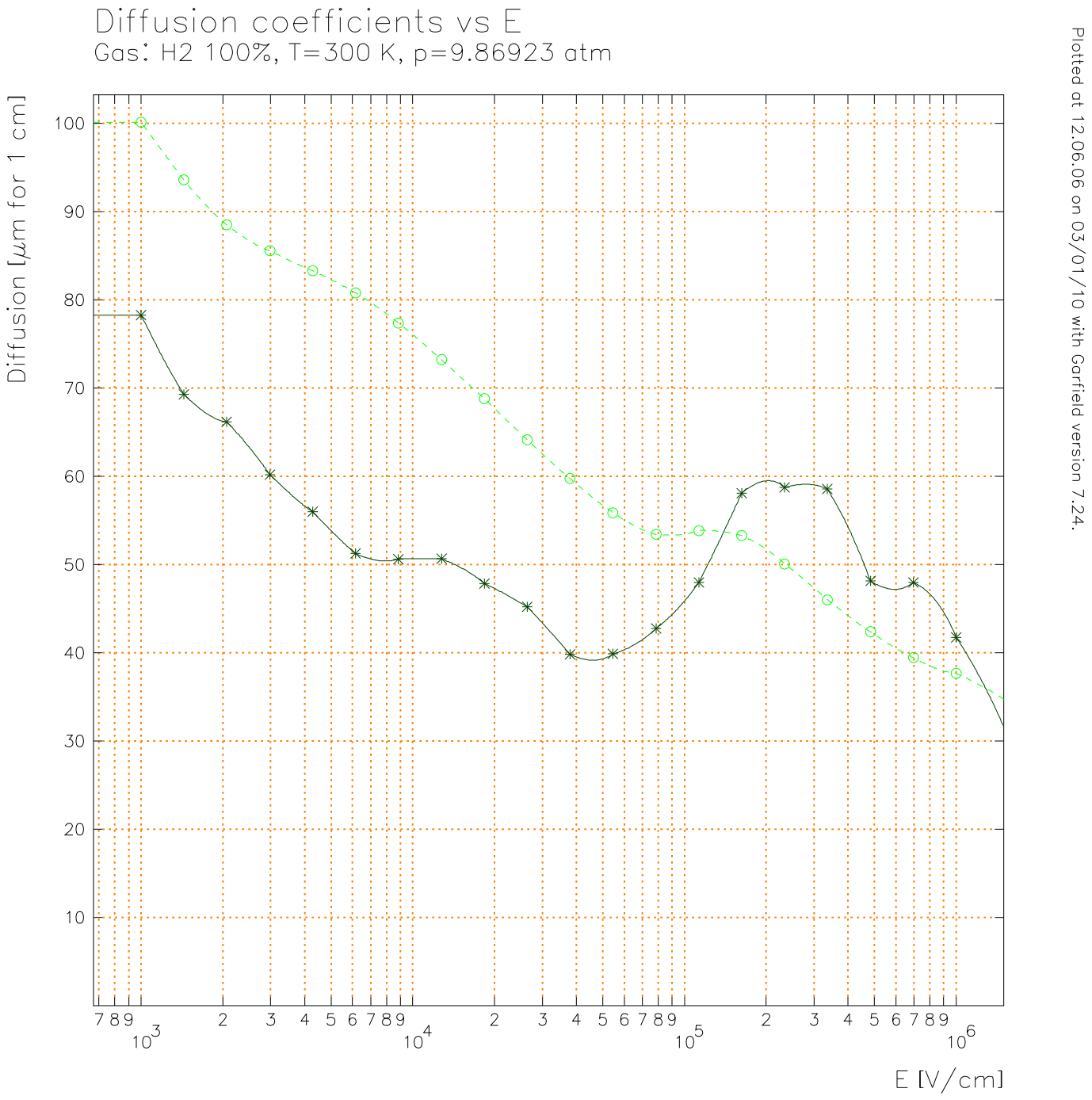
Plotted at 12.06.04 on 03/01/10 with Garfield version 7.24.



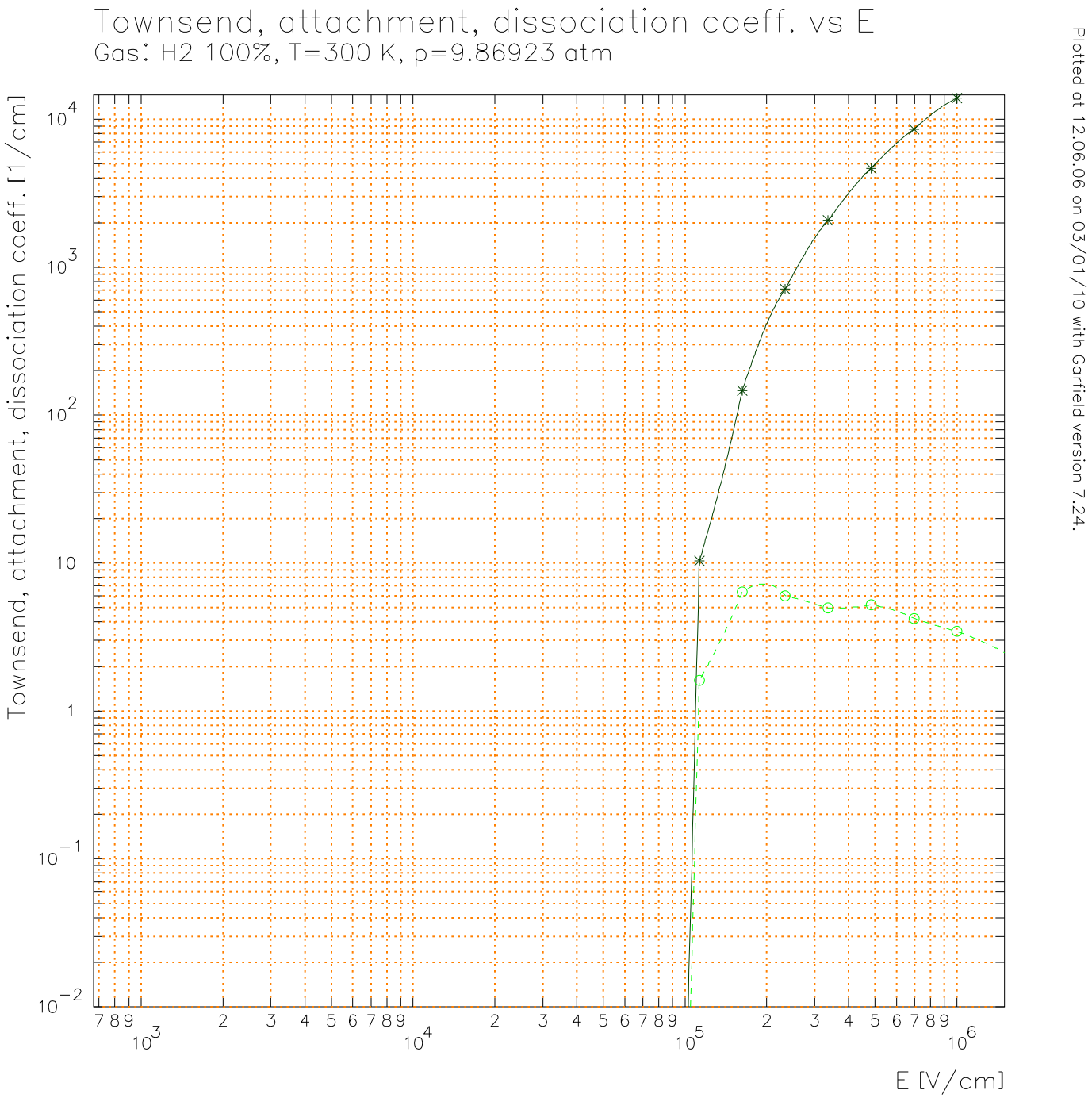

Drift velocity vs E
Gas: H2 100%, T=300 K, p=9.86923 atm
Drift velocity [cm/μsec]
E [V/cm]
Plotted at 12.06.06 on 03/01/10 with Garfield version 7.24.

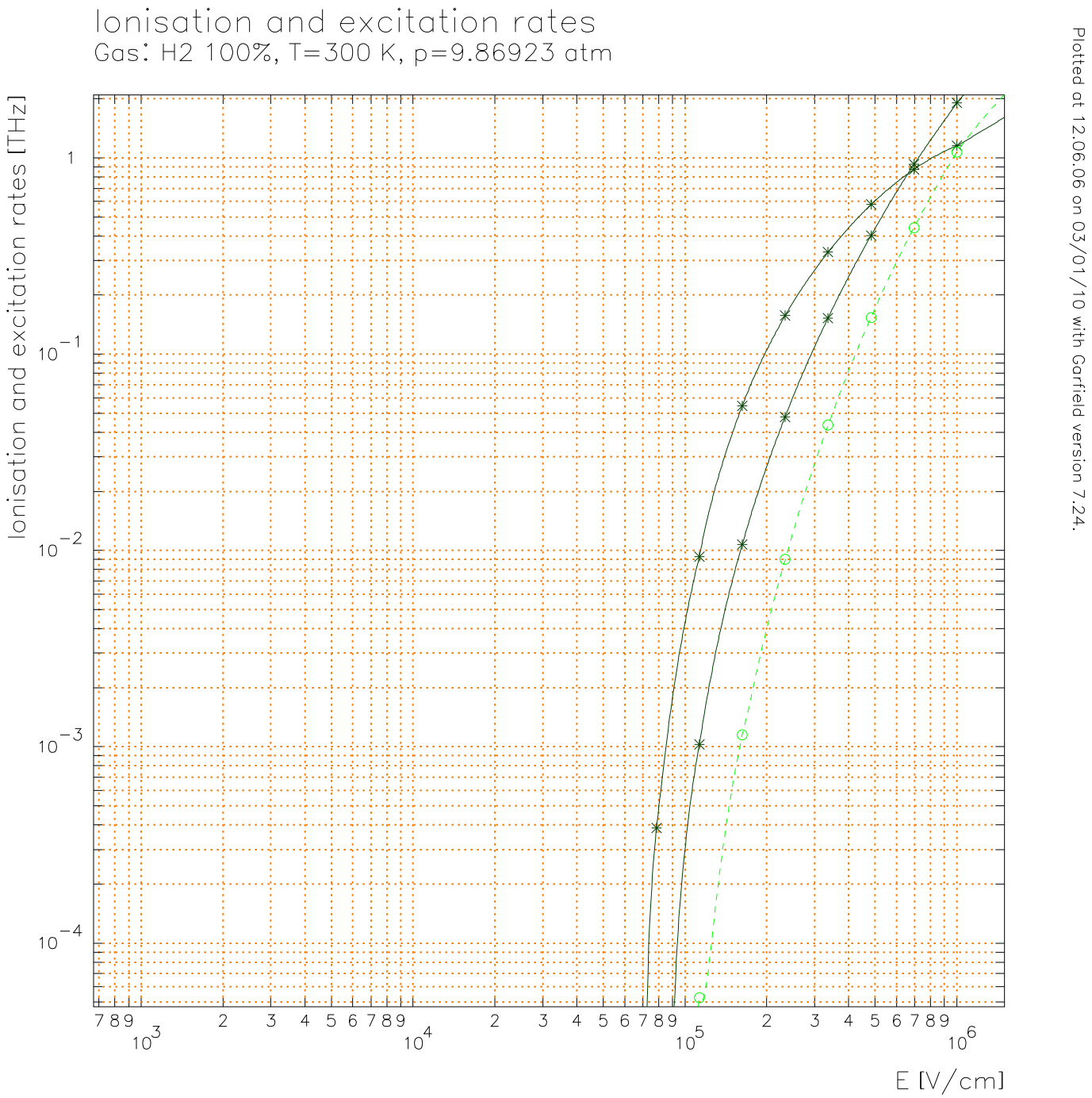


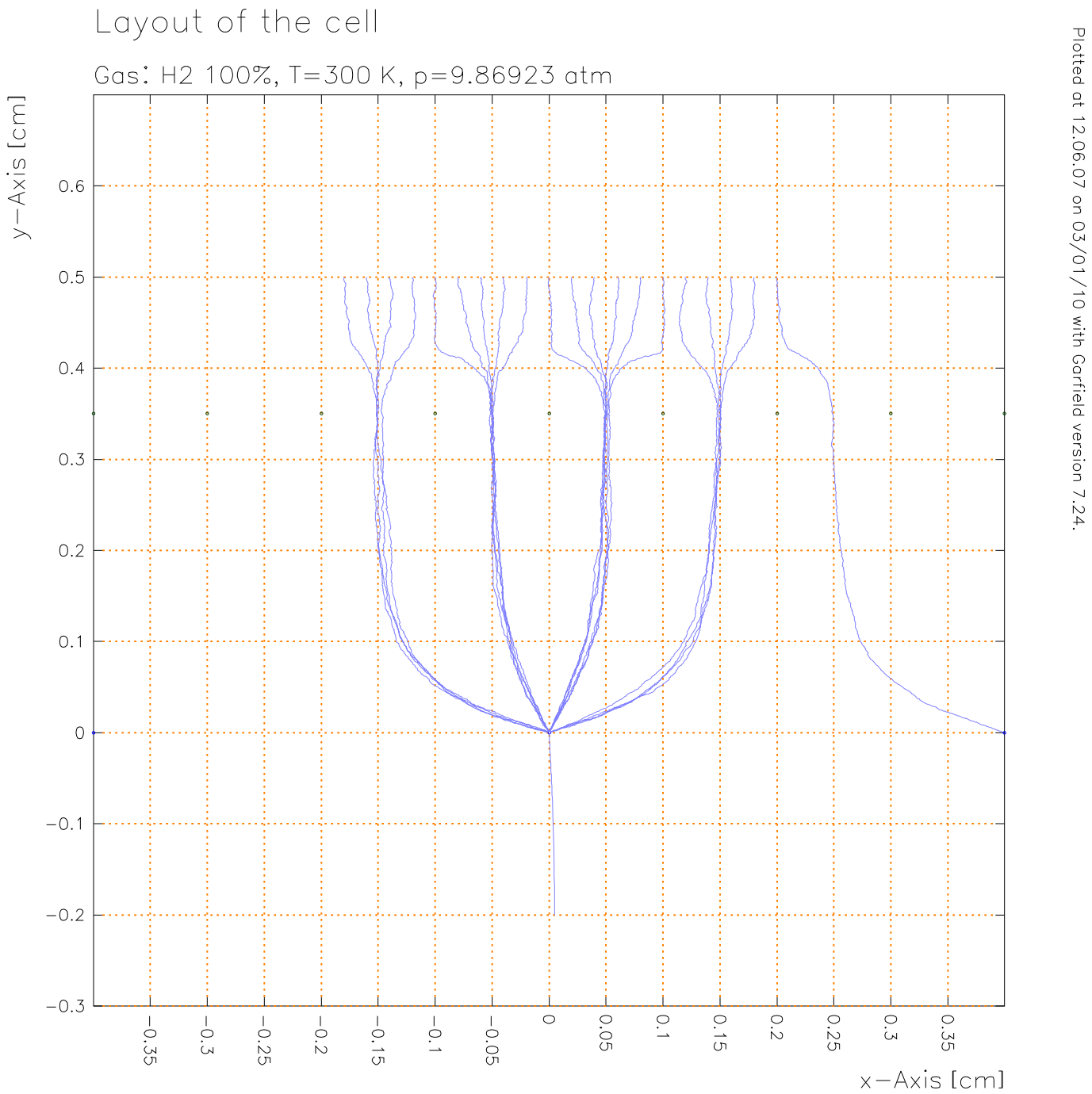
Plotted at 12.06.06 on 03/01/10 with Garfield version 7.24.



Plotted at 12.06.06 on 03/01/10 with Garfield version 7.24.

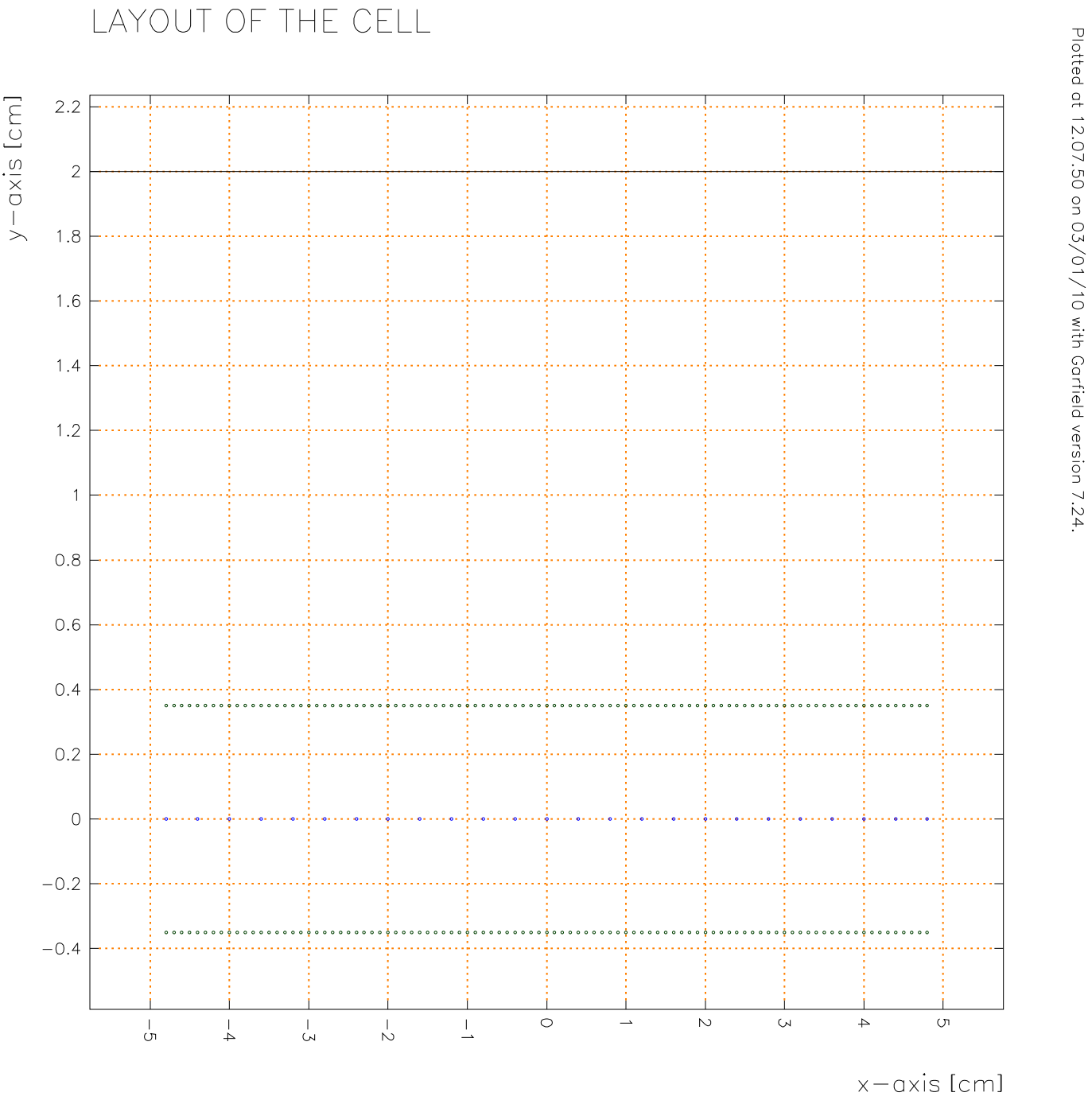

Townsend, attachment, dissociation coeff. vs E
Gas: H2 100%, T=300 K, p=9.86923 atm
Townsend, attachment, dissociation coeff. [1/cm]
E [V/cm]
Plotted at 12.06.06 on 03/01/10 with Garfield version 7.24.

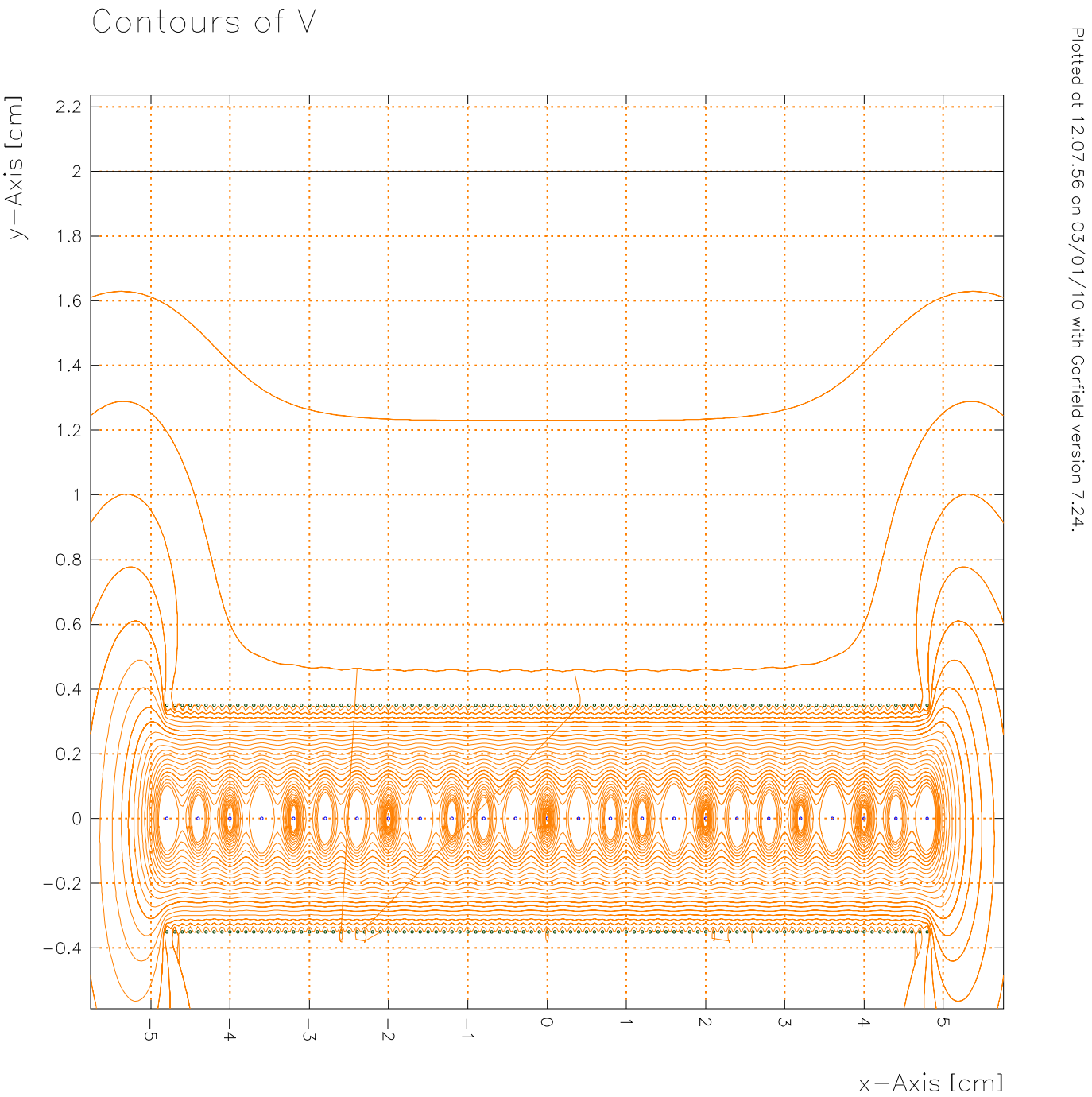


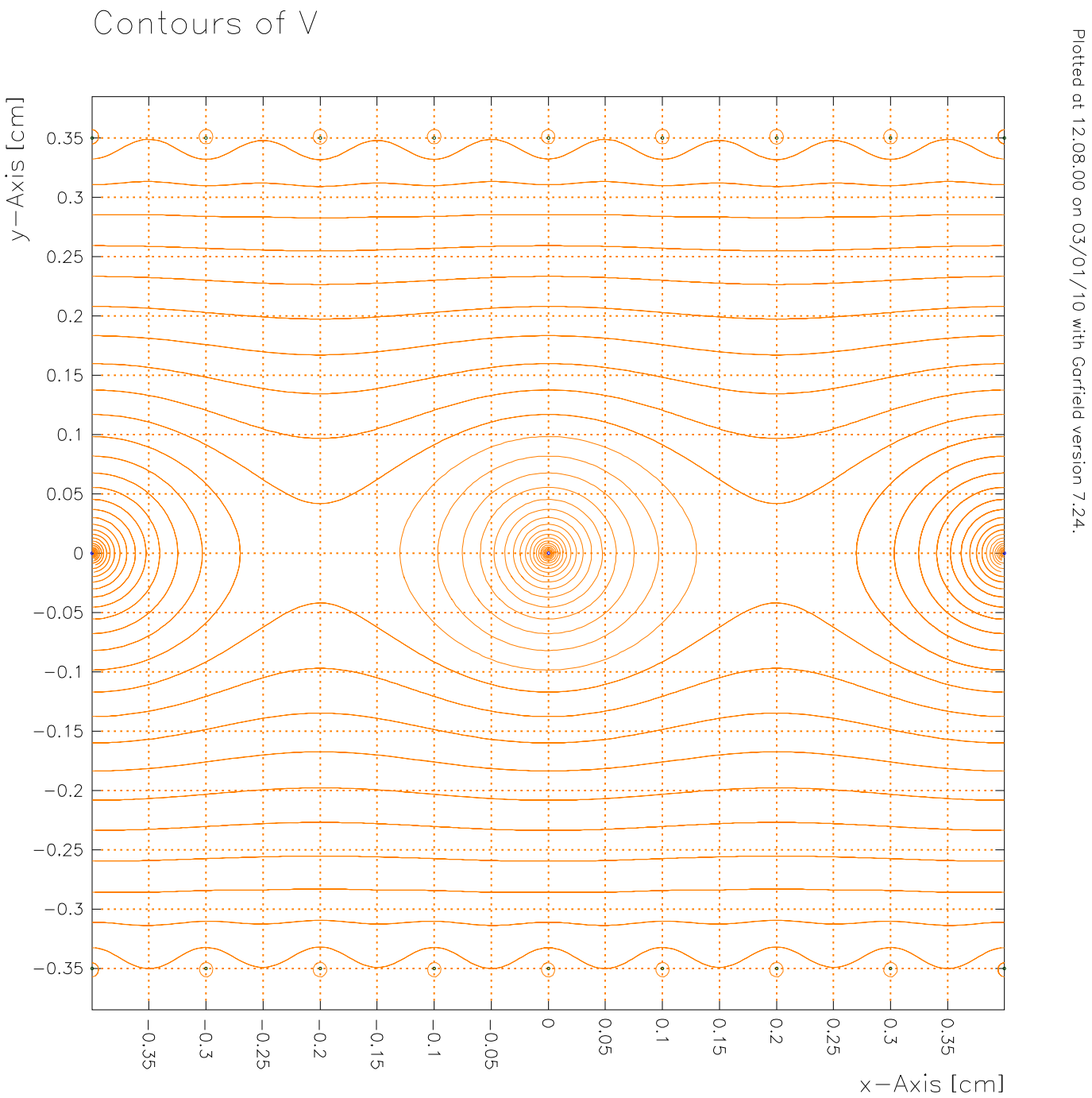


Plotted at 12.06.07 on 03/01/10 with Garfield version 7.24.

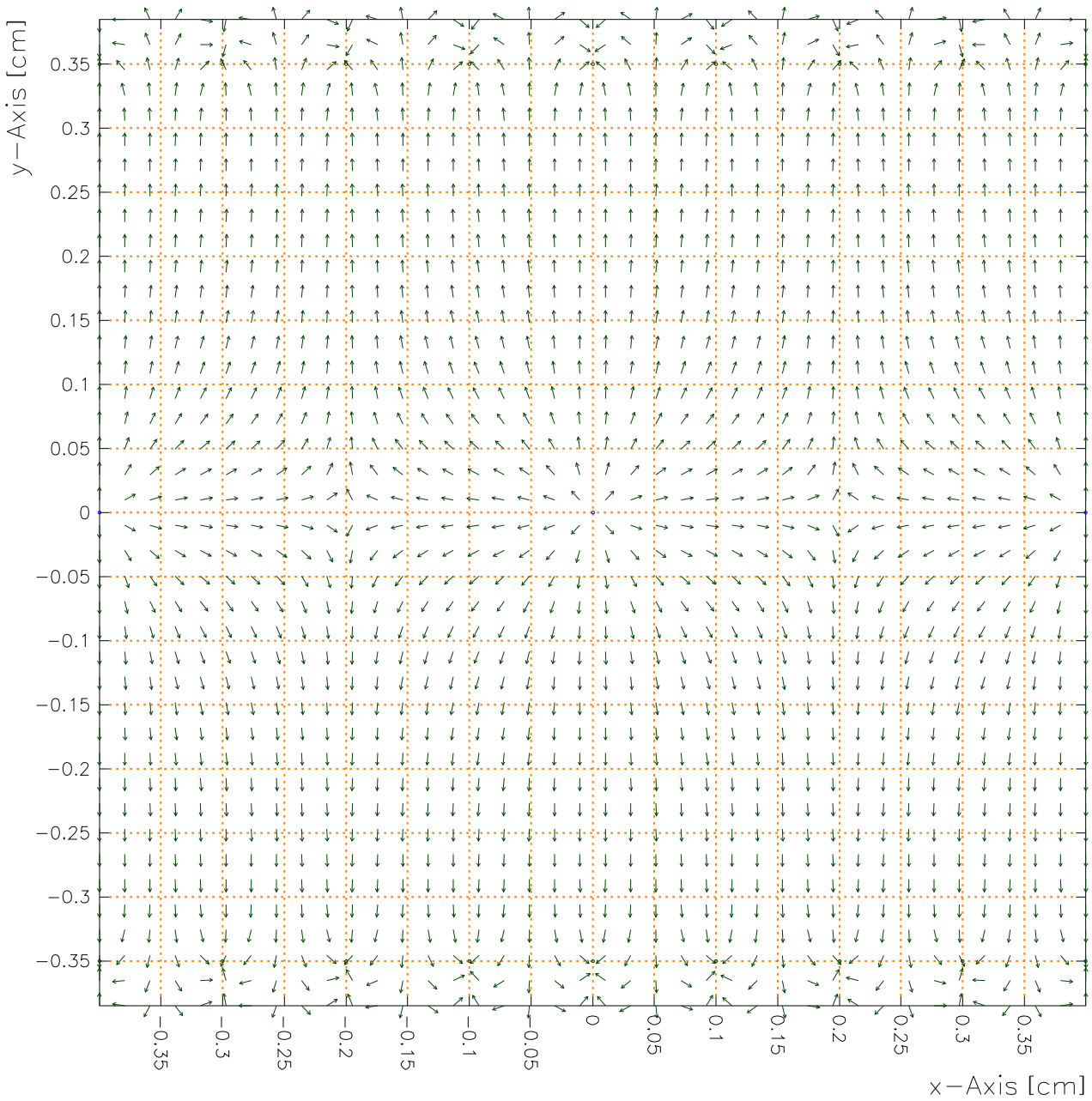
6500 V


LAYOUT OF THE CELL
y−axis [cm]
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−5
−4
−3
−2
−1
0
1
2
3
4
5
x−axis [cm]
Plotted at 12.07.50 on 03/01/10 with Garfield version 7.24.

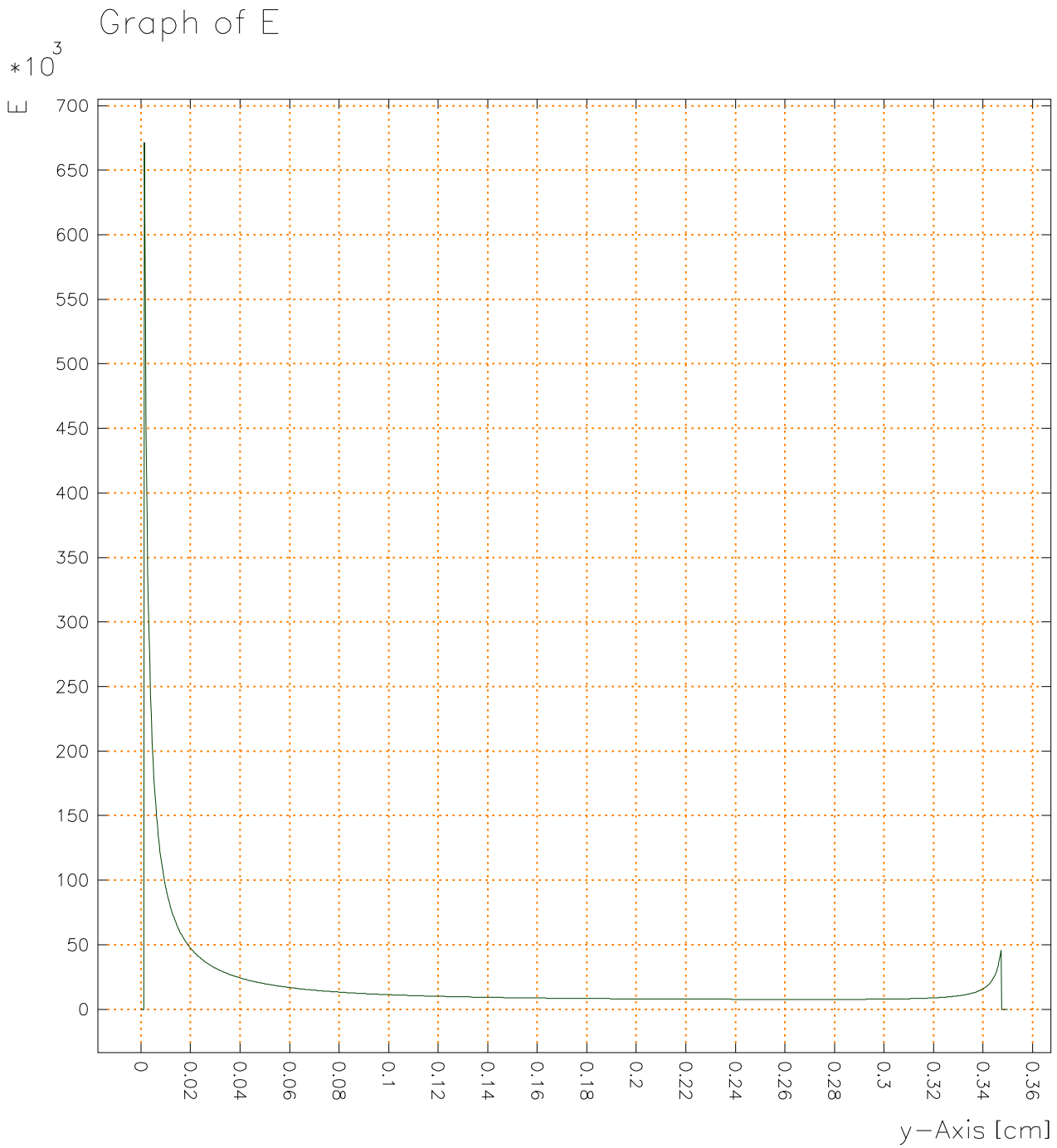

Contours of V
y−Axis [cm]
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−5
−4
−3
−2
−1
0
1
2
3
4
5
x−Axis [cm]
Plotted at 12.07.56 on 03/01/10 with Garfield version 7.24.



Plotted at 12.08.00 on 03/01/10 with Garfield version 7.24.

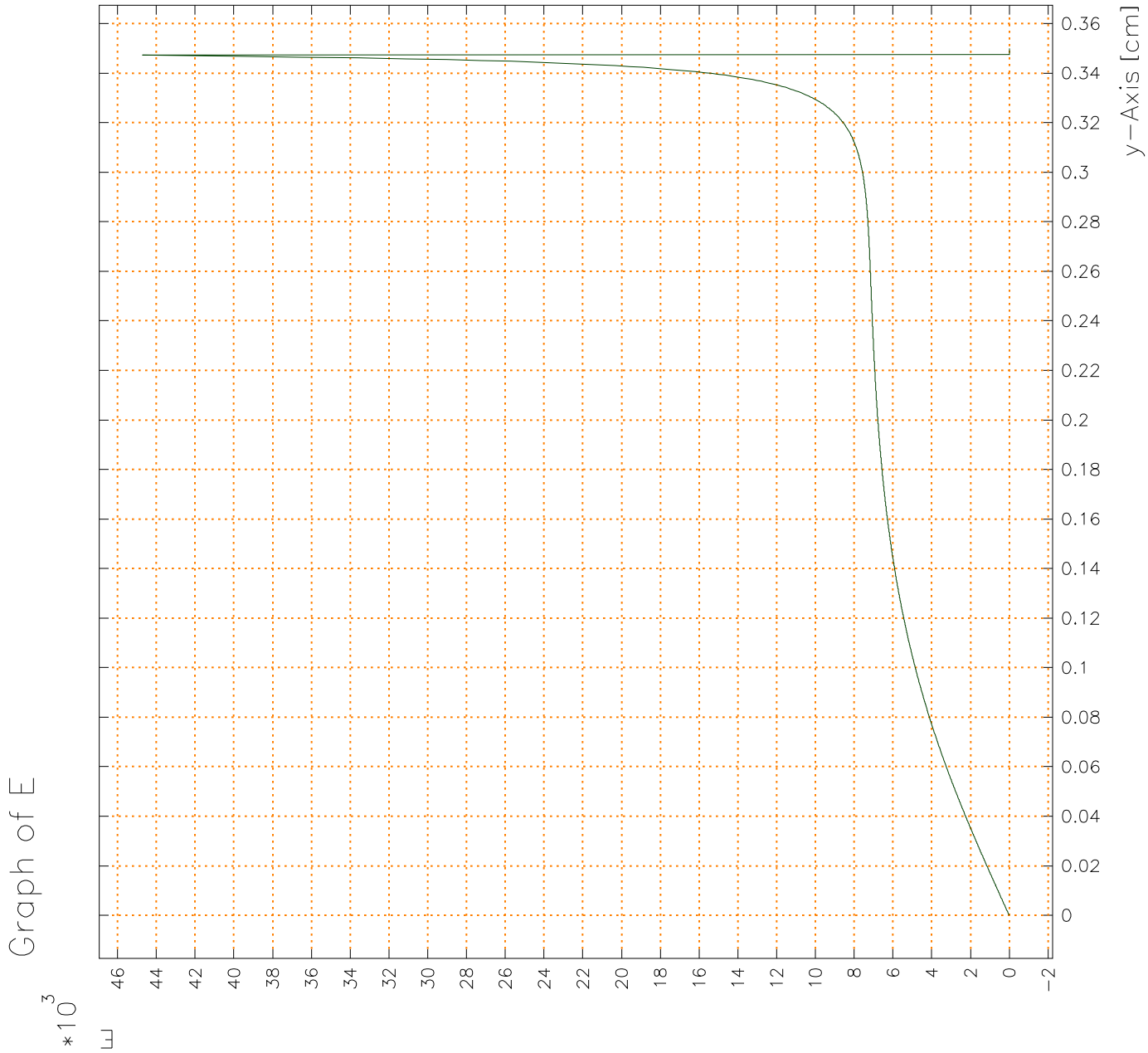


Plotted at 12.08.00 on 03/01/10 with Garfield version 7.24.

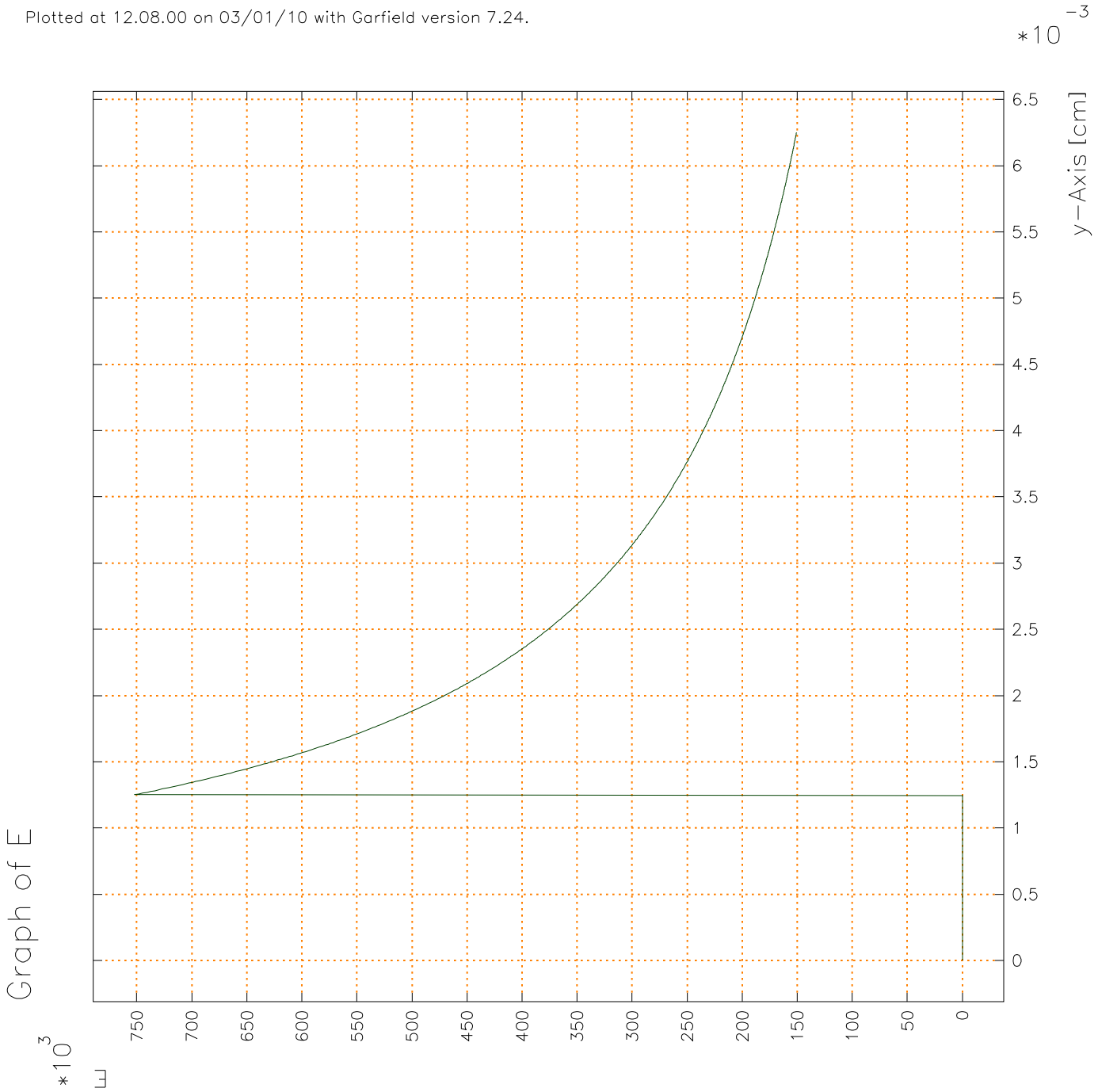


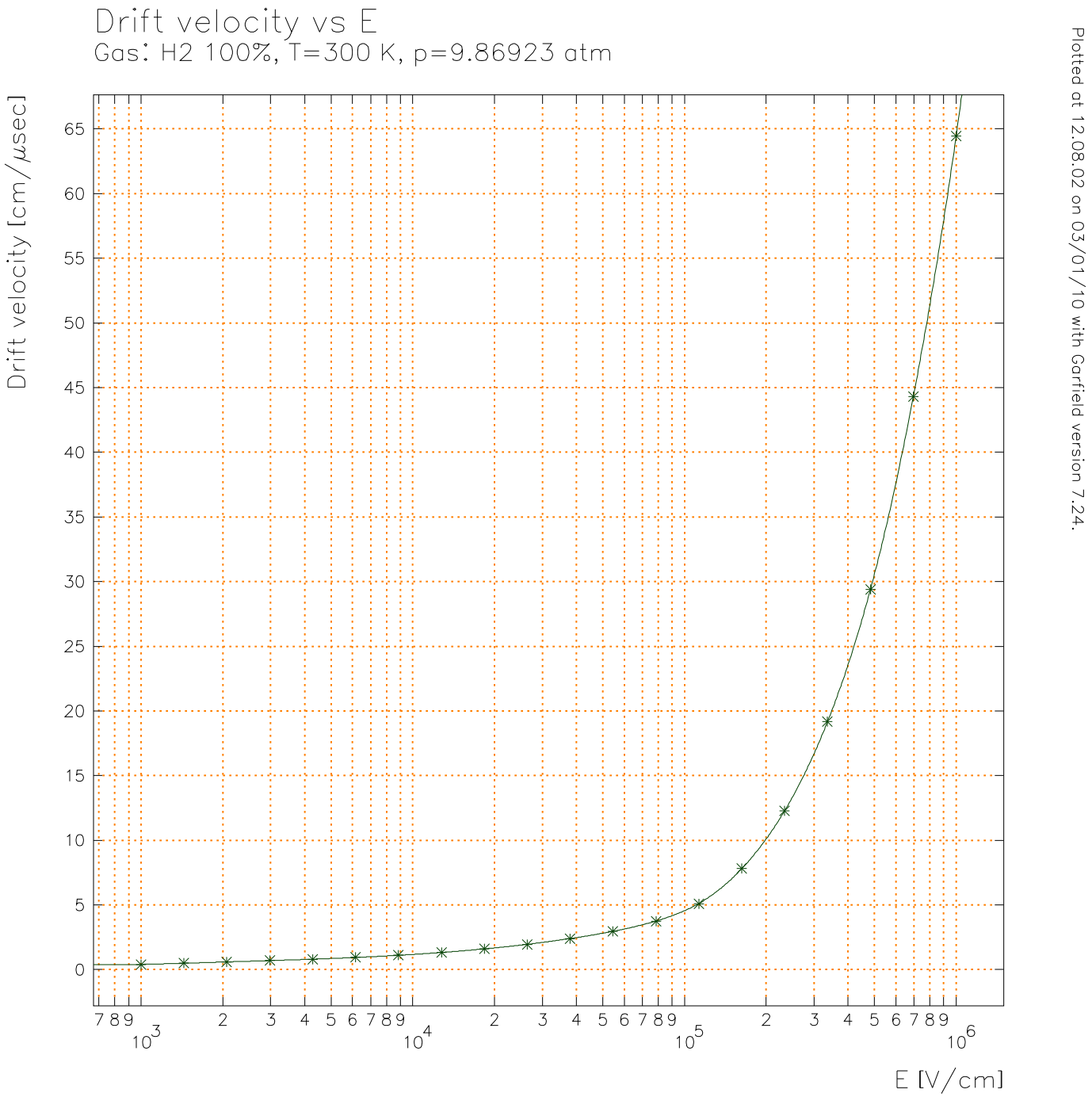
Plotted at 12.08.00 on 03/01/10 with Garfield version 7.24.

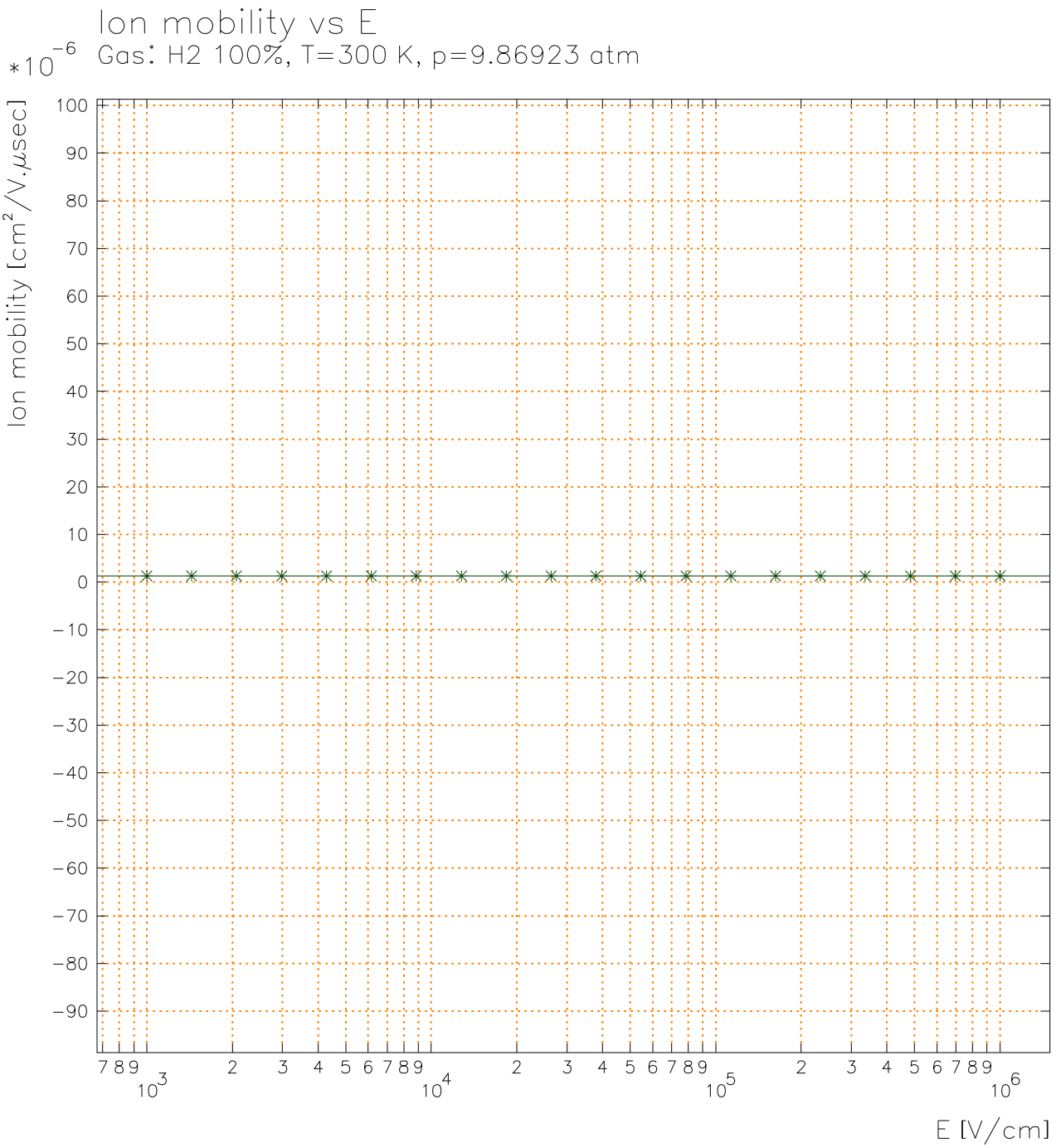
Plotted at 12.08.00 on 03/01/10 with Garfield version 7.24.



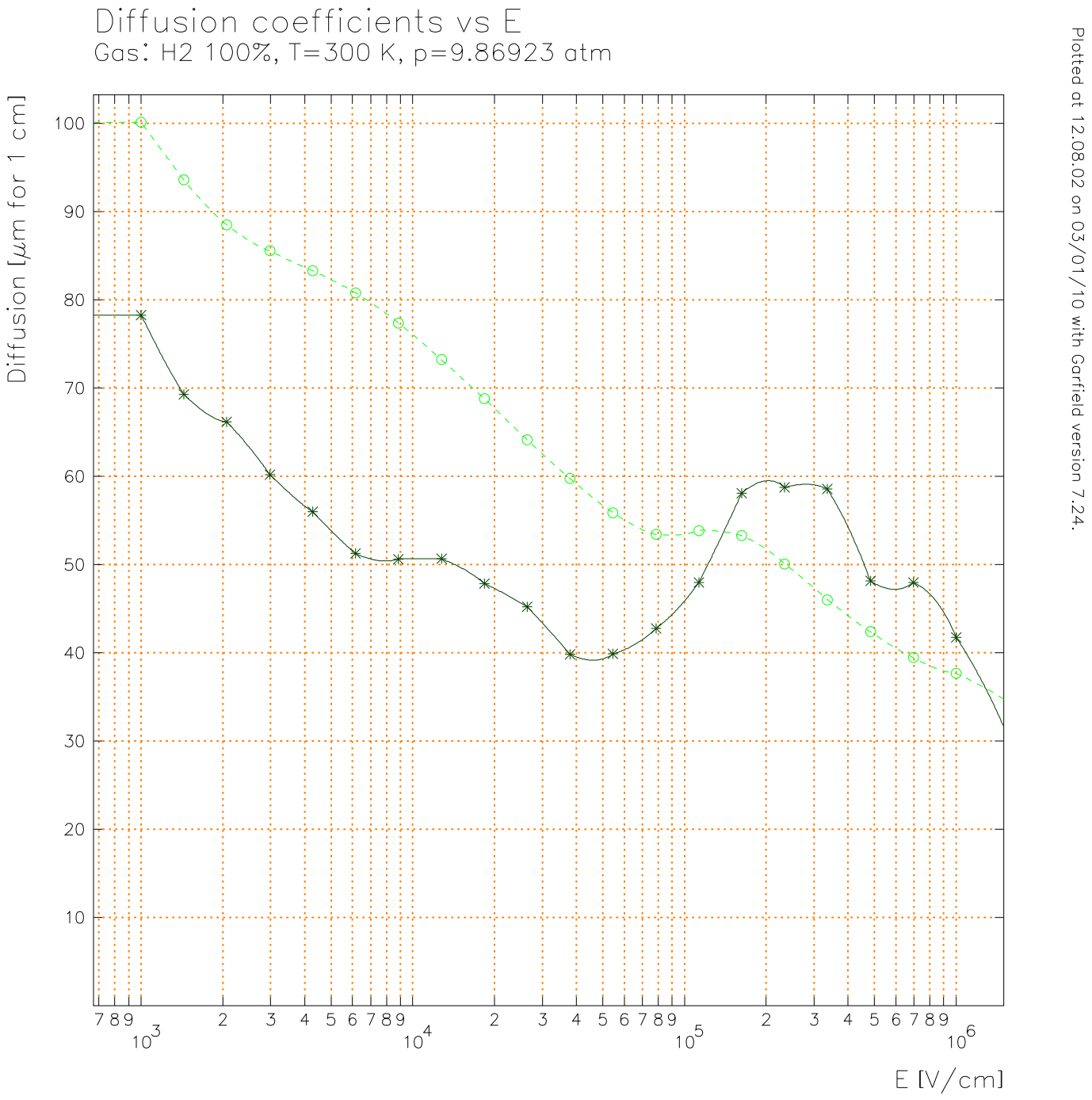
Plotted at 12.08.00 on 03/01/10 with Garfield version 7.24.

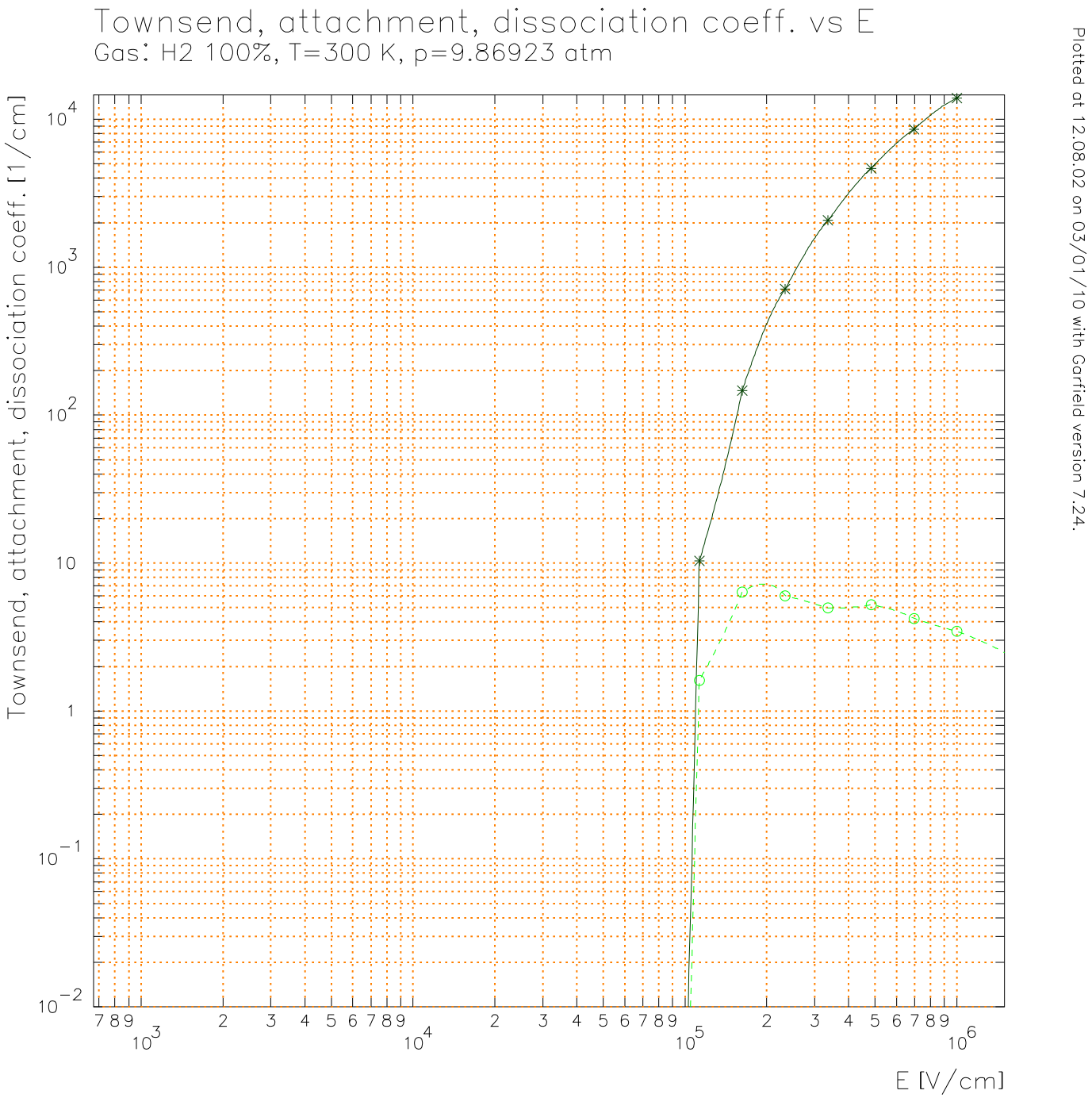


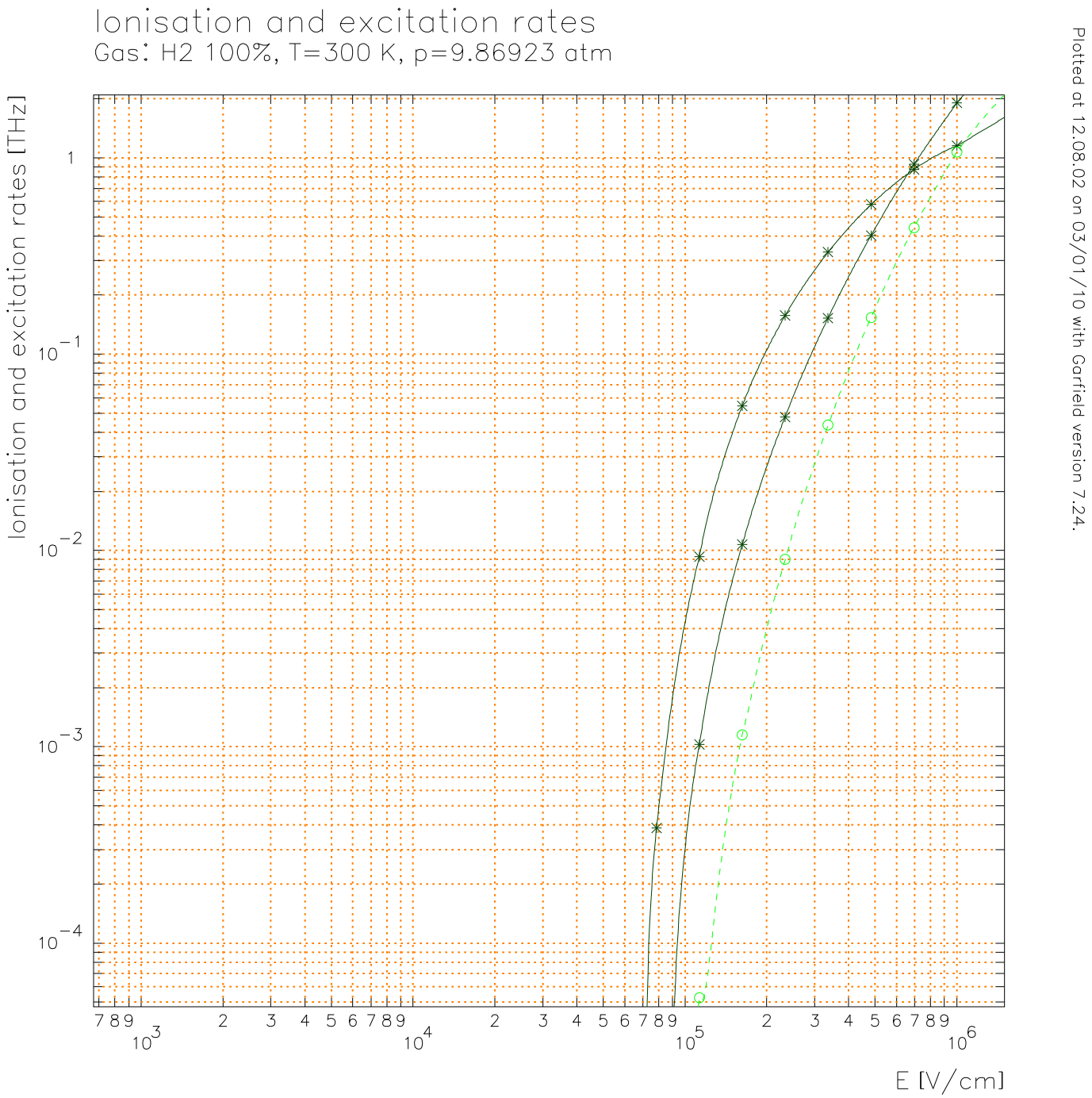

Drift velocity vs E
Gas: H2 100%, T=300 K, p=9.86923 atm
Drift velocity [cm/μsec]
E [V/cm]
Plotted at 12.08.02 on 03/01/10 with Garfield version 7.24.



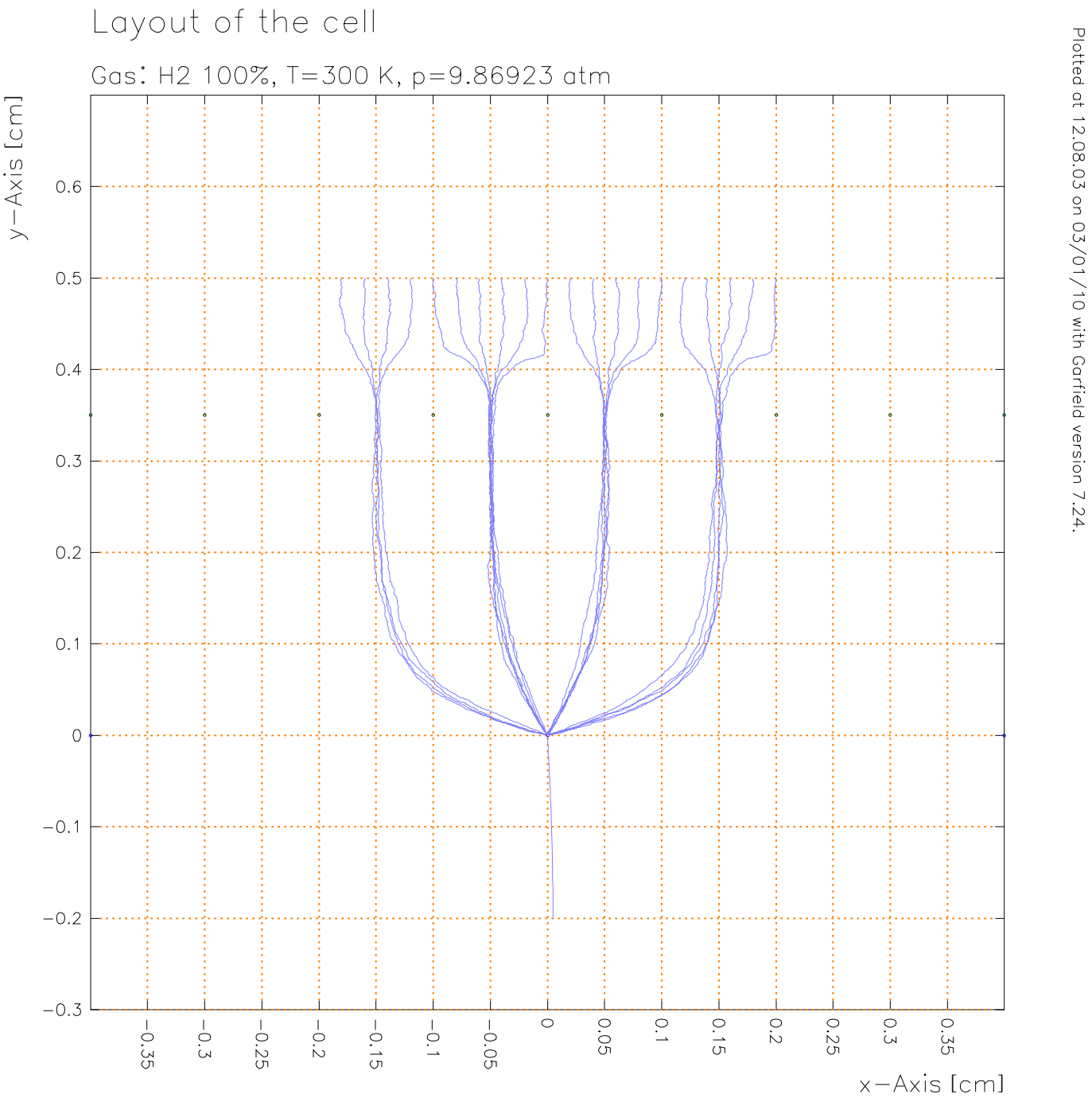
Plotted at 12.08.02 on 03/01/10 with Garfield version 7.24.




Townsend, attachment, dissociation coeff. vs E
Gas: H2 100%, T=300 K, p=9.86923 atm
Townsend, attachment, dissociation coeff. [1/cm]
E [V/cm]
Plotted at 12.08.02 on 03/01/10 with Garfield version 7.24.



Plotted at 12.08.02 on 03/01/10 with Garfield version 7.24.



Plotted at 12.08.03 on 03/01/10 with Garfield version 7.24.