```
In [50]:
         %matplotlib inline
         %load_ext autoreload
         %autoreload 2 # Make it easier to test by autoreloading modules on execution
         n
         The autoreload extension is already loaded. To reload it, use:
           %reload_ext_autoreload
         import calphad.libcalphadcpp as lcp
In [51]:
         from calphad.minimize.globmin import GlobalMinimizer
         import numpy as np
         import matplotlib.pyplot as plt
         # Load thermodynamic database
         maindb = lcp.Database("Ni-H-Austin.tdb")
         if maindb == None:
                 sys.exit("Failed to load database")
         conds = lcp.evalconditions()
         conds.statevars['T'] = 1073
         conds.statevars['P'] = 101325
         conds.statevars['N'] = 1
         conds.elements.append('H')
         conds.elements.append('NI')
         conds.elements.append('VA')
         conds.phases["FCC_A1"] = lcp.PhaseStatus.ENTERED
         # Configure variable names
         indices = lcp.IndexBiMap()
         varmap = lcp.build_variable_map ( maindb.get_phases(), conds, indices )
```

```
In [52]: # Initialize minimizer and sample points
    engine = lcp.GlobalMinimizer()
    engine.initial_subdivisions_per_axis = 20
    engine.discard_unstable = False
    points_1073 = engine.point_sample(cmps['FCC_A1'], varmap, conds)
    conds.statevars['T'] = 1473
    points_1473 = engine.point_sample(cmps['FCC_A1'], varmap, conds)
    points_1073 = np.array(points_1073)
    points_1473 = np.array(points_1473)
```

cmps[ph.key()] = lcp.CompositionSet(ph.data(), maindb.get_parameter

 $cmps = \{\}$

Create phases

for ph in maindb.get_phases():

_set(), varmap, indices)

status = conds.phases[ph.key()]

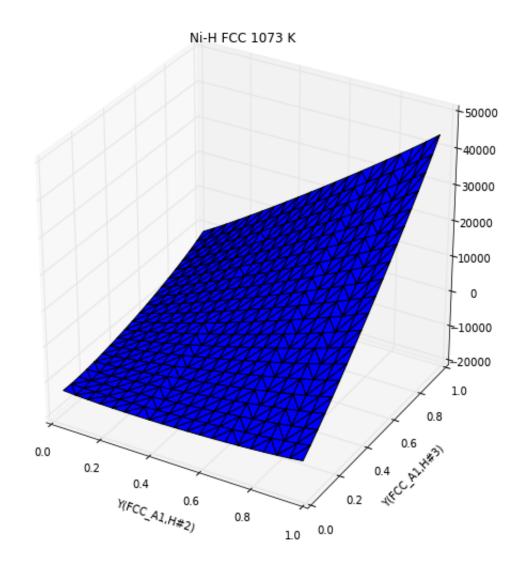
if (status == lcp.PhaseStatus.ENTERED):

```
In [53]: from mpl_toolkits.mplot3d import Axes3D
import matplotlib.tri as tri
fig = plt.figure(figsize=(9,9))
ax = fig.add_subplot(111, projection='3d')

triang = tri.Triangulation(points_1073[:,1],points_1073[:,3])

# mask off the triangles on the side
mask = np.any(np.any(np.where(points[triang.triangles,0:4] < 1e-6, True, Fa
lse),axis=1), axis=1)
triang.set_mask(mask)

ax.plot_trisurf(triang,points[:,5], shade=False)
plt.xlabel('Y(FCC_A1, H#2)')
plt.ylabel('Y(FCC_A1, H#3)')
plt.title('Ni-H FCC 1073 K')
plt.show()</pre>
```

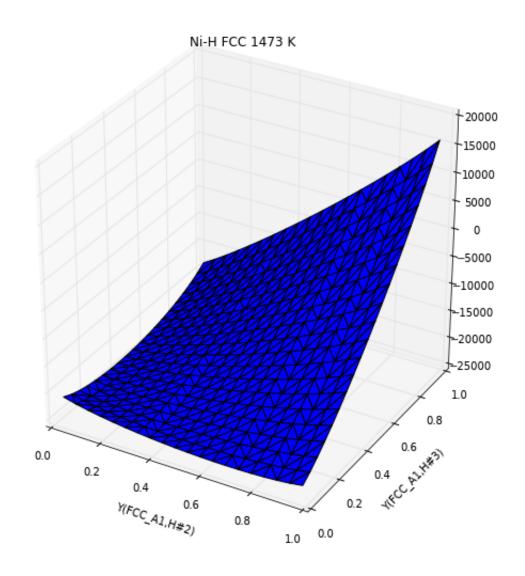


```
In [54]: from mpl_toolkits.mplot3d import Axes3D
import matplotlib.tri as tri
fig = plt.figure(figsize=(9,9))
ax = fig.add_subplot(111, projection='3d')

triang = tri.Triangulation(points_1473[:,1],points_1473[:,3])

# mask off the triangles on the side
mask = np.any(np.any(np.where(points_1473[triang.triangles,0:4] < 1e-6, Tru
e, False),axis=1), axis=1)
triang.set_mask(mask)

ax.plot_trisurf(triang,points_1473[:,5], shade=False)
plt.xlabel('Y(FCC_A1,H#2)')
plt.ylabel('Y(FCC_A1,H#3)')
plt.title('Ni-H FCC 1473 K')
plt.show()</pre>
```



Documentation

A couple of things that might help to know for reproducing the figures. A small but finite Curie temperature was added to all the paramagnetic end-members to work around a bug in our implementation of the magnetic model.

```
np.set_printoptions(threshold='nan')
In [55]:
          print(points_1073)
              1.00000000e+00
                               1.00000000e-12
                                                 1.00000000e+00
                                                                  1.00000000e-12
              1.00000000e+00
                              -1.24382443e+04]
                               1.00000000e-12
             1.0000000e+00
                                                 1.00000000e+00
                                                                  1.0000000e+00
              1.00000000e-12
                              -1.18229371e+03]
              1.0000000e+00
                               1.00000000e+00
                                                 1.00000000e-12
                                                                  1.00000000e-12
              1.00000000e+00
                              -1.17505751e+04]
             1.0000000e+00
                               1.00000000e+00
                                                 1.00000000e-12
                                                                  1.0000000e+00
              1.00000000e-12
                               4.76216944e+04]
                               9.75000000e-01
              1.0000000e+00
                                                 2.50000000e-02
                                                                  9.75000000e-01
              2.50000000e-02
                               4.41651277e+04]
                               9.75000000e-01
              1.00000000e+00
                                                 2.50000000e-02
                                                                  9.25000000e-01
              7.50000000e-02
                               4.05898840e+04]
              1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  8.75000000e-01
                               3.71890188e+04]
              1.25000000e-01
                               9.75000000e-01
             1.0000000e+00
                                                 2.50000000e-02
                                                                  8.25000000e-01
              1.75000000e-01
                               3.38926659e+041
             1.00000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  7.75000000e-01
              2.25000000e-01
                               3.06744599e+04]
             1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  7.25000000e-01
                               2.75206333e+04]
              2.75000000e-01
             1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  6.75000000e-01
              3.25000000e-01
                               2.44229792e+04]
              1.00000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  6.25000000e-01
              3.75000000e-01
                               2.13763114e+04]
             1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  5.75000000e-01
              4.25000000e-01
                               1.83773326e+04]
              1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  5.2500000e-01
              4.75000000e-01
                               1.54240732e+04]
             1.00000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  4.75000000e-01
              5.25000000e-01
                               1.25156087e+04]
             1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  4.25000000e-01
              5.75000000e-01
                               9.65193909e+03]
             1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  3.75000000e-01
              6.25000000e-01
                               6.83398889e+03]
             1.00000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  3.25000000e-01
              6.75000000e-01
                               4.06372763e+031
              1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  2.75000000e-01
              7.25000000e-01
                               1.34445269e+03]
              1.0000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  2.25000000e-01
              7.75000000e-01
                              -1.31864969e+03]
              1.00000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  1.75000000e-01
```

-3.91737276e+03]

8.25000000e-01

[1.00000000e+00	9.75000000e-01	2.50000000e-02	1.25000000e-01
[8.75000000e-01 1.00000000e+00	-6.43794886e+03] 9.75000000e-01	2.50000000e-02	7.50000000e-02
_	9.25000000e-01	-8.85401266e+03]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	2.50000000e-02
_	9.75000000e-01	-1.10956980e+04]		
[1.00000000e+00 2.50000000e-02	9.25000000e-01 4.14516877e+04]	7.50000000e-02	9.75000000e-01
[1.00000000e+00	9.25000000e-01	7.50000000e-02	9.25000000e-01
L	7.500000000e-02	3.79967419e+04]	7.300000000-02	9.230000000-01
[1.00000000e+00	9.25000000e-01	7.50000000e-02	8.75000000e-01
_	1.25000000e-01	3.47161746e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	8.25000000e-01
	1.75000000e-01	3.15401196e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	7.75000000e-01
	2.25000000e-01	2.84422116e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	7.25000000e-01
_	2.75000000e-01	2.54086829e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	6.75000000e-01
_	3.25000000e-01	2.24313267e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	6.25000000e-01
-	3.75000000e-01	1.95049569e+04]	7 50000000 00	5 7500000 · 04
[1.00000000e+00	9.25000000e-01	7.50000000e-02	5.75000000e-01
г	4.25000000e-01	1.66262760e+04]	7 50000000 00	F 2F000000 01
[1.00000000e+00	9.25000000e-01	7.50000000e-02	5.25000000e-01
[4.75000000e-01 1.00000000e+00	1.37933145e+04] 9.25000000e-01	7.50000000e-02	4.75000000e-01
L	5.25000000e-01	1.10051479e+04]	7.300000000-02	4.730000000-01
Γ	1.00000000e+00	9.25000000e-01	7.50000000e-02	4.25000000e-01
L	5.75000000e-01	8.26177618e+03]	7.000000000 02	41200000000 01
Γ	1.00000000e+00	9.25000000e-01	7.50000000e-02	3.75000000e-01
-	6.25000000e-01	5.56412390e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	3.25000000e-01
_	6.75000000e-01	2.91416056e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	2.75000000e-01
	7.25000000e-01	3.15183538e+02]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	2.25000000e-01
	7.75000000e-01	-2.22762092e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	1.75000000e-01
-	8.25000000e-01	-4.70604607e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	1.25000000e-01
г	8.75000000e-01	-7.10632425e+03]	7 50000000 00	7
[1.00000000e+00	9.25000000e-01	7.50000000e-02	7.50000000e-02
[9.25000000e-01 1.00000000e+00	-9.40209013e+03] 9.25000000e-01	7.50000000e-02	2.50000000e-02
L	9.75000000e-01	-1.15234776e+04]	7.300000000-02	2.30000000e-02
[1.00000000e+00	8.75000000e-01	1.25000000e-01	9.75000000e-01
L	2.50000000e-02	3.88254369e+04]	1.200000000	3.700000000 01
[1.00000000e+00	8.75000000e-01	1.25000000e-01	9.25000000e-01
L	7.50000000e-02	3.54907890e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	8.75000000e-01
-	1.25000000e-01	3.23305197e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	8.25000000e-01
	1.75000000e-01	2.92747626e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	7.75000000e-01
	2.25000000e-01	2.62971525e+04]		

[1.00000000e+00	8.75000000e-01	1.25000000e-01	7.25000000e-01
[2.75000000e-01 1.00000000e+00	2.33839217e+04] 8.75000000e-01	1.25000000e-01	6.75000000e-01
L	3.25000000e-01	2.05268634e+04]	11200000000	01100000000
[1.00000000e+00	8.75000000e-01	1.25000000e-01	6.25000000e-01
Γ	3.75000000e-01 1.00000000e+00	1.77207915e+04] 8.75000000e-01	1.25000000e-01	5.75000000e-01
L	4.250000000e-01	1.49624085e+04]	1.250000000-01	5.7500000000-01
[1.00000000e+00	8.75000000e-01	1.25000000e-01	5.25000000e-01
-	4.75000000e-01	1.22497450e+04]	4 0500000 04	. =====================================
[1.00000000e+00 5.25000000e-01	8.75000000e-01 9.58187631e+03]	1.25000000e-01	4.75000000e-01
[1.00000000e+00	8.75000000e-01	1.25000000e-01	4.25000000e-01
-	5.75000000e-01	6.95880250e+03]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	3.75000000e-01
[6.25000000e-01 1.00000000e+00	4.38144814e+03] 8.75000000e-01	1.25000000e-01	3.25000000e-01
L	6.750000000e-01	1.85178272e+03]	1.23000000 01	3.230000000 01
[1.00000000e+00	8.75000000e-01	1.25000000e-01	2.75000000e-01
-	7.25000000e-01	-6.26896385e+02]	4 0500000 04	0.05000000.01
[1.00000000e+00 7.75000000e-01	8.75000000e-01 -3.04940293e+03]	1.25000000e-01	2.25000000e-01
Γ	1.00000000e+00	8.75000000e-01	1.25000000e-01	1.75000000e-01
_	8.25000000e-01	-5.40753016e+03]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	1.25000000e-01
[8.75000000e-01 1.00000000e+00	-7.68751041e+03] 8.75000000e-01	1.25000000e-01	7.50000000e-02
L	9.25000000e-01	-9.86297838e+03]	1.1200000000	7.1000000000000000
[1.00000000e+00	8.75000000e-01	1.25000000e-01	2.50000000e-02
г	9.75000000e-01 1.00000000e+00	-1.18640679e+04] 8.25000000e-01	1 75000000 01	0 75000000 01
[2.500000000e-02	3.62514422e+04]	1.75000000e-01	9.75000000e-01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	9.25000000e-01
_	7.50000000e-02	3.30370923e+04]		
[1.00000000e+00 1.25000000e-01	8.25000000e-01 2.99971209e+04]	1.75000000e-01	8.75000000e-01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	8.25000000e-01
-	1.75000000e-01	2.70616617e+04]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	7.75000000e-01
[2.25000000e-01 1.00000000e+00	2.42043495e+04] 8.25000000e-01	1.75000000e-01	7.25000000e-01
L	2.750000000e-01	2.14114166e+04]	1.700000000	7.250000000
[1.00000000e+00	8.25000000e-01	1.75000000e-01	6.75000000e-01
г	3.25000000e-01	1.86746563e+04]	1 75000000 01	0.0500000000000000000000000000000000000
[1.00000000e+00 3.75000000e-01	8.25000000e-01 1.59888823e+04]	1.75000000e-01	6.25000000e-01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	5.75000000e-01
_	4.25000000e-01	1.33507972e+04]		
[1.00000000e+00 4.75000000e-01	8.25000000e-01 1.07584316e+04]	1.75000000e-01	5.25000000e-01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	4.75000000e-01
L	5.25000000e-01	8.21086085e+03]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	4.25000000e-01
[5.75000000e-01 1.00000000e+00	5.70808497e+03] 8.25000000e-01	1.75000000e-01	3.75000000e-01
L	6.25000000e-01	3.25102852e+03]	T.1.0000000E-0T	3.730000000-01
		-		

[1.00000000e+00	8.25000000e-01	1.75000000e-01	3.25000000e-01
г	6.75000000e-01 1.00000000e+00	8.41661016e+02] 8.25000000e-01	1.75000000e-01	2.75000000e-01
[7.25000000e-01	-1.51672017e+03]	1.750000000-01	2.730000000-01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	2.25000000e-01
_	7.75000000e-01	-3.81892880e+03]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	1.75000000e-01
_	8.25000000e-01	-6.05675812e+03]	4 7500000- 04	4 05000000 04
[1.00000000e+00 8.75000000e-01	8.25000000e-01 -8.21644047e+03]	1.75000000e-01	1.25000000e-01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	7.50000000e-02
L	9.25000000e-01	-1.02716105e+04]	1.700000000	7.000000000 02
[1.00000000e+00	8.25000000e-01	1.75000000e-01	2.50000000e-02
	9.75000000e-01	-1.21524021e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	9.75000000e-01
г	2.50000000e-02	3.37165211e+04]	2 25000000 01	0 25000000 01
[1.00000000e+00 7.50000000e-02	7.75000000e-01 3.06224691e+04]	2.25000000e-01	9.25000000e-01
[1.00000000e+00	7.75000000e-01	2.25000000e-01	8.75000000e-01
L	1.25000000e-01	2.77027955e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	8.25000000e-01
_	1.75000000e-01	2.48876343e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	7.75000000e-01
[2.25000000e-01 1.00000000e+00	2.21506200e+04] 7.75000000e-01	2.25000000e-01	7.25000000e-01
L	2.750000000e-01	1.94779850e+04]	2.2300000000	7.230000000-01
[1.00000000e+00	7.75000000e-01	2.25000000e-01	6.75000000e-01
	3.25000000e-01	1.68615226e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	6.25000000e-01
г	3.75000000e-01	1.42960466e+04]	2 25000000 01	F 7F000000 01
[1.00000000e+00 4.25000000e-01	7.75000000e-01 1.17782594e+04]	2.25000000e-01	5.75000000e-01
[1.00000000e+00	7.75000000e-01	2.25000000e-01	5.25000000e-01
L	4.75000000e-01	9.30619171e+03]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	4.75000000e-01
_	5.25000000e-01	6.87891888e+03]	0.05000000.04	
[1.00000000e+00	7.75000000e-01	2.25000000e-01	4.25000000e-01
[5.75000000e-01 1.00000000e+00	4.49644091e+03] 7.75000000e-01	2.25000000e-01	3.75000000e-01
L	6.25000000e-01	2.15968237e+03]	2.200000000	0.700000000
[1.00000000e+00	7.75000000e-01	2.25000000e-01	3.25000000e-01
	6.75000000e-01	-1.29387225e+02]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	2.75000000e-01
г	7.25000000e-01	-2.36747051e+03]	2.25000000e-01	2.25000000e-01
[1.00000000e+00 7.75000000e-01	7.75000000e-01 -4.54938124e+03]	2.2500000000-01	2.2500000000-01
[1.00000000e+00	7.75000000e-01	2.25000000e-01	1.75000000e-01
-	8.25000000e-01	-6.66691267e+03]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	1.25000000e-01
r	8.75000000e-01	-8.70629715e+03]	0.0500000000000	7 50000000 00
[1.00000000e+00	7.75000000e-01	2.25000000e-01	7.50000000e-02
[9.25000000e-01 1.00000000e+00	-1.06411693e+04] 7.75000000e-01	2.25000000e-01	2.50000000e-02
L	9.75000000e-01	-1.24016631e+04]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	9.75000000e-01
	2.50000000e-02	3.12137896e+04]		

[1.00000000e+00	7.25000000e-01	2.75000000e-01	9.25000000e-01
[7.50000000e-02 1.00000000e+00	2.82400355e+04] 7.25000000e-01	2.75000000e-01	8.75000000e-01
L	1.25000000e-01	2.54406599e+04]	2.73000000000000	0.75000000000000
[1.00000000e+00	7.25000000e-01	2.75000000e-01	8.25000000e-01
г	1.75000000e-01	2.27457965e+04]	2 75000000 01	7 75000000 01
[1.00000000e+00 2.25000000e-01	7.25000000e-01 2.01290802e+04]	2.75000000e-01	7.75000000e-01
[1.00000000e+00	7.25000000e-01	2.75000000e-01	7.25000000e-01
_	2.75000000e-01	1.75767431e+04]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	6.75000000e-01
[3.25000000e-01 1.00000000e+00	1.50805786e+04] 7.25000000e-01	2.75000000e-01	6.25000000e-01
L	3.75000000e-01	1.26354005e+04]	2.700000000	0.230000000
[1.00000000e+00	7.25000000e-01	2.75000000e-01	5.75000000e-01
-	4.25000000e-01	1.02379113e+04]	0.7500000- 01	F 05000000 04
[1.00000000e+00 4.75000000e-01	7.25000000e-01 7.88614147e+03]	2.75000000e-01	5.25000000e-01
[1.00000000e+00	7.25000000e-01	2.75000000e-01	4.75000000e-01
_	5.25000000e-01	5.57916654e+03]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	4.25000000e-01
Г	5.75000000e-01 1.00000000e+00	3.31698648e+03] 7.25000000e-01	2.75000000e-01	3.75000000e-01
L	6.25000000e-01	1.10052584e+03]	2.700000000	0.700000000
[1.00000000e+00	7.25000000e-01	2.75000000e-01	3.25000000e-01
г	6.75000000e-01	-1.06824587e+03]	2 75000000 01	0.75000000 01
[1.00000000e+00 7.25000000e-01	7.25000000e-01 -3.18603129e+03]	2.75000000e-01	2.75000000e-01
Γ	1.00000000e+00	7.25000000e-01	2.75000000e-01	2.25000000e-01
_	7.75000000e-01	-5.24764417e+03]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	1.75000000e-01
[8.25000000e-01 1.00000000e+00	-7.24487778e+03] 7.25000000e-01	2.75000000e-01	1.25000000e-01
L	8.75000000e-01	-9.16396447e+03]	2.700000000	1.200000000
[1.00000000e+00	7.25000000e-01	2.75000000e-01	7.50000000e-02
г	9.25000000e-01	-1.09785389e+04]	0.75000000 01	2 50000000 00
[1.00000000e+00 9.75000000e-01	7.25000000e-01 -1.26187350e+04]	2.75000000e-01	2.50000000e-02
[1.00000000e+00	6.75000000e-01	3.25000000e-01	9.75000000e-01
	2.50000000e-02	2.87391443e+04]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	9.25000000e-01
[7.50000000e-02 1.00000000e+00	2.58856882e+04] 6.75000000e-01	3.25000000e-01	8.75000000e-01
L	1.25000000e-01	2.32066105e+04]	0.20000000	0.700000000
[1.00000000e+00	6.75000000e-01	3.25000000e-01	8.25000000e-01
г	1.75000000e-01	2.06320451e+04]	2 25000000 01	7 75000000 01
[1.00000000e+00 2.25000000e-01	6.75000000e-01 1.81356266e+04]	3.25000000e-01	7.75000000e-01
[1.00000000e+00	6.75000000e-01	3.25000000e-01	7.25000000e-01
	2.75000000e-01	1.57035875e+04]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	6.75000000e-01
[3.25000000e-01 1.00000000e+00	1.33277209e+04] 6.75000000e-01	3.25000000e-01	6.25000000e-01
L	3.750000000e-01	1.10028407e+04]	1.20000000	3.20000000
[1.00000000e+00	6.75000000e-01	3.25000000e-01	5.75000000e-01
	4.25000000e-01	8.72564937e+03]		

[1.00000000e+00	6.75000000e-01	3.25000000e-01	5.25000000e-01
[4.75000000e-01 1.00000000e+00	6.49417749e+03] 6.75000000e-01	3.25000000e-01	4.75000000e-01
L	5.25000000e-01	4.30750046e+03]	0.20000000	11100000000
[1.00000000e+00	6.75000000e-01	3.25000000e-01	4.25000000e-01
г	5.75000000e-01	2.16561828e+03]	2 25000000 01	2 75000000 01
[1.00000000e+00 6.25000000e-01	6.75000000e-01 6.94555029e+01]	3.25000000e-01	3.75000000e-01
[1.00000000e+00	6.75000000e-01	3.25000000e-01	3.25000000e-01
-	6.75000000e-01	-1.97901838e+03]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	2.75000000e-01
г	7.25000000e-01	-3.97650600e+03]	2 25000000 01	2 25000000 01
[1.00000000e+00 7.75000000e-01	6.75000000e-01 -5.91782114e+03]	3.25000000e-01	2.25000000e-01
[1.00000000e+00	6.75000000e-01	3.25000000e-01	1.75000000e-01
-	8.25000000e-01	-7.79475707e+03]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	1.25000000e-01
г	8.75000000e-01	-9.59354616e+03]	2 25000000 01	7
[1.00000000e+00 9.25000000e-01	6.75000000e-01 -1.12878231e+04]	3.25000000e-01	7.50000000e-02
[1.00000000e+00	6.75000000e-01	3.25000000e-01	2.50000000e-02
-	9.75000000e-01	-1.28077218e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	9.75000000e-01
г	2.50000000e-02	2.62899923e+04]	2 75000000 01	0 25000000 01
[1.00000000e+00 7.50000000e-02	6.25000000e-01 2.35568340e+04]	3.75000000e-01	9.25000000e-01
[1.000000000e+00	6.25000000e-01	3.75000000e-01	8.75000000e-01
-	1.25000000e-01	2.09980542e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	8.25000000e-01
г	1.75000000e-01 1.00000000e+00	1.85437868e+04] 6.25000000e-01	3.75000000e-01	7.75000000e-01
[2.25000000e-01	1.61676662e+04]	3.7500000000-01	7.7500000000-01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	7.25000000e-01
	2.75000000e-01	1.38559250e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	6.75000000e-01
[3.25000000e-01 1.00000000e+00	1.16003564e+04] 6.25000000e-01	3.75000000e-01	6.25000000e-01
L	3.750000000e-01	9.39577404e+03]	3.7300000000	0.2300000000-01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	5.75000000e-01
	4.25000000e-01	7.23888063e+03]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	5.25000000e-01
[4.75000000e-01 1.00000000e+00	5.12770664e+03] 6.25000000e-01	3.75000000e-01	4.75000000e-01
L	5.25000000e-01	3.06132748e+03]	3.730000000 01	4.730000000 01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	4.25000000e-01
_	5.75000000e-01	1.03974313e+03]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	3.75000000e-01
[6.25000000e-01 1.00000000e+00	-9.36121845e+02] 6.25000000e-01	3.75000000e-01	3.25000000e-01
L	6.750000000e-01	-2.86429799e+03]	0.700000000	0.200000000
[1.00000000e+00	6.25000000e-01	3.75000000e-01	2.75000000e-01
_	7.25000000e-01	-4.74148795e+03]	0 ==000000	
	1.00000000e+00 7.75000000e-01	6.25000000e-01	3.75000000e-01	2.25000000e-01
[1.00000000e+00	-6.56250555e+03] 6.25000000e-01	3.75000000e-01	1.75000000e-01
L	8.25000000e-01	-8.31914406e+03]	11111111111111111	11.13000000
		_		

[1.00000000e+00	6.25000000e-01	3.75000000e-01	1.25000000e-01
_	8.75000000e-01	-9.99763592e+03]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	7.50000000e-02
г	9.25000000e-01	-1.15716159e+04]	2 75000000 01	2 50000000 02
[1.00000000e+00 9.75000000e-01	6.25000000e-01 -1.29712178e+04]	3.75000000e-01	2.50000000e-02
[1.00000000e+00	5.75000000e-01	4.25000000e-01	9.75000000e-01
L	2.50000000e-02	2.38646847e+04]	4.230000000 01	3.750000000000000
[1.00000000e+00	5.75000000e-01	4.25000000e-01	9.25000000e-01
_	7.50000000e-02	2.12518243e+04]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	8.75000000e-01
	1.25000000e-01	1.88133425e+04]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	8.25000000e-01
_	1.75000000e-01	1.64793729e+04]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	7.75000000e-01
г	2.25000000e-01	1.42235503e+04]	4 25000000 01	7 25000000 01
[1.00000000e+00	5.75000000e-01	4.25000000e-01	7.25000000e-01
[2.75000000e-01 1.00000000e+00	1.20321070e+04] 5.75000000e-01	4.25000000e-01	6.75000000e-01
L	3.25000000e-01	9.89683629e+03]	4.230000000-01	0.75000000e-01
[1.00000000e+00	5.75000000e-01	4.25000000e-01	6.25000000e-01
L	3.75000000e-01	7.81255185e+03]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	5.75000000e-01
	4.25000000e-01	5.77595633e+03]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	5.25000000e-01
	4.75000000e-01	3.78508020e+03]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	4.75000000e-01
-	5.25000000e-01	1.83899886e+03]	4 0500000- 04	4 0500000- 04
[1.00000000e+00	5.75000000e-01	4.25000000e-01	4.25000000e-01
Г	5.75000000e-01 1.00000000e+00	-6.22877194e+01] 5.75000000e-01	4.25000000e-01	3.75000000e-01
L	6.25000000e-01	-1.91785502e+03]	4.230000000 01	3.730000000000000
[1.00000000e+00	5.75000000e-01	4.25000000e-01	3.25000000e-01
_	6.75000000e-01	-3.72573359e+03]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	2.75000000e-01
	7.25000000e-01	-5.48262615e+03]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	2.25000000e-01
_	7.75000000e-01	-7.18334653e+03]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	1.75000000e-01
г	8.25000000e-01	-8.81968811e+03]	4 25000000 01	1 25000000 01
[1.00000000e+00 8.75000000e-01	5.75000000e-01 -1.03778834e+04]	4.25000000e-01	1.25000000e-01
[1.0000000e+00	5.75000000e-01	4.25000000e-01	7.50000000e-02
L	9.25000000e-01	-1.18315671e+04]	11200000000	110000000000000000000000000000000000000
[1.00000000e+00	5.75000000e-01	4.25000000e-01	2.50000000e-02
-	9.75000000e-01	-1.31108735e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	9.75000000e-01
	2.50000000e-02	2.14622368e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	9.25000000e-01
-	7.50000000e-02	1.89696744e+04]	4 7500000	0.75000000
[1.00000000e+00	5.25000000e-01	4.75000000e-01	8.75000000e-01
г	1.25000000e-01 1.00000000e+00	1.66514904e+04] 5.25000000e-01	4.75000000e-01	8.25000000e-01
[1.750000000e-01	1.44378188e+04]	4.7500000000-01	0.25000000E-01
[1.0000000e+00	5.25000000e-01	4.75000000e-01	7.75000000e-01
L	2.25000000e-01	1.23022941e+04]	1111111111111111	
		-		

[1.00000000e+00	5.25000000e-01	4.75000000e-01	7.25000000e-01
[2.75000000e-01 1.00000000e+00	1.02311487e+04] 5.25000000e-01	4.75000000e-01	6.75000000e-01
	3.25000000e-01	8.21617591e+03]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	6.25000000e-01
_	3.75000000e-01	6.25218936e+03]		
[1.00000000e+00 4.25000000e-01	5.25000000e-01 4.33589170e+03]	4.75000000e-01	5.75000000e-01
[1.00000000e+00	5.25000000e-01	4.75000000e-01	5.25000000e-01
	4.75000000e-01	2.46531339e+03]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	4.75000000e-01
-	5.25000000e-01	6.39529794e+02]	4 75000000 01	4 05000000 04
[1.00000000e+00 5.75000000e-01	5.25000000e-01 -1.14145914e+03]	4.75000000e-01	4.25000000e-01
Γ	1.00000000e+00	5.25000000e-01	4.75000000e-01	3.75000000e-01
L	6.25000000e-01	-2.87672894e+03]	11100000000	01100000000 01
[1.00000000e+00	5.25000000e-01	4.75000000e-01	3.25000000e-01
L	6.75000000e-01	-4.56431023e+03]	11.00000000	0.20000000
[1.00000000e+00	5.25000000e-01	4.75000000e-01	2.75000000e-01
-	7.25000000e-01	-6.20090577e+03]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	2.25000000e-01
_	7.75000000e-01	-7.78132950e+03]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	1.75000000e-01
	8.25000000e-01	-9.29737489e+03]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	1.25000000e-01
	8.75000000e-01	-1.07352746e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	7.50000000e-02
_	9.25000000e-01	-1.20686635e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	2.50000000e-02
г	9.75000000e-01	-1.32276759e+04]	F 25000000 01	0 75000000 01
[1.00000000e+00 2.50000000e-02	4.75000000e-01 1.90821863e+04]	5.25000000e-01	9.75000000e-01
г	1.00000000e+00	4.75000000e-01	5.25000000e-01	9.25000000e-01
[7.50000000e-02	1.67099219e+04]	3.230000000-01	9.23000000e-01
[1.00000000e+00	4.75000000e-01	5.25000000e-01	8.75000000e-01
L	1.25000000e-01	1.45120358e+04]	0.20000000	0.700000000
[1.00000000e+00	4.75000000e-01	5.25000000e-01	8.25000000e-01
-	1.75000000e-01	1.24186621e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	7.75000000e-01
	2.25000000e-01	1.04034353e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	7.25000000e-01
	2.75000000e-01	8.45258788e+03]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	6.75000000e-01
_	3.25000000e-01	6.55791294e+03]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	6.25000000e-01
-	3.75000000e-01	4.71422427e+03]	E 0500000 01	F 7500000 04
[1.00000000e+00	4.75000000e-01	5.25000000e-01	5.75000000e-01
г	4.25000000e-01	2.91822443e+03]	F 25000000 01	E 25000000 01
[1.00000000e+00 4.75000000e-01	4.75000000e-01 1.16794386e+03]	5.25000000e-01	5.25000000e-01
г	1.00000000e+00	4.75000000e-01	5.25000000e-01	4.75000000e-01
[5.25000000e-01	-5.37542101e+02]	J.23000000E-01	+./J000000e-01
[1.00000000e+00	4.75000000e-01	5.25000000e-01	4.25000000e-01
L	5.75000000e-01	-2.19823358e+03]	5.20000000000	200000000
[1.00000000e+00	4.75000000e-01	5.25000000e-01	3.75000000e-01
-	6.25000000e-01	-3.81320617e+03]		
		_		

[1.00000000e+00	4.75000000e-01	5.25000000e-01	3.25000000e-01
-	6.75000000e-01	-5.38049059e+03]	5 0500000 01	0.75000000.01
[1.00000000e+00 7.25000000e-01	4.75000000e-01	5.25000000e-01	2.75000000e-01
[1.00000000e+00	-6.89678972e+03] 4.75000000e-01	5.25000000e-01	2.25000000e-01
L	7.75000000e-01	-8.35691765e+03]	3.230000000 01	2.230000000000000
Γ	1.00000000e+00	4.75000000e-01	5.25000000e-01	1.75000000e-01
-	8.25000000e-01	-9.75266802e+03]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	1.25000000e-01
_	8.75000000e-01	-1.10702737e+04]	F 0500000- 01	7 50000000 00
[1.00000000e+00 9.25000000e-01	4.75000000e-01 -1.22833698e+04]	5.25000000e-01	7.50000000e-02
[1.00000000e+00	4.75000000e-01	5.25000000e-01	2.50000000e-02
L	9.75000000e-01	-1.33220910e+04]	0.200000000	2.000000000 02
[1.00000000e+00	4.25000000e-01	5.75000000e-01	9.75000000e-01
	2.50000000e-02	1.67245333e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	9.25000000e-01
г	7.50000000e-02	1.44725668e+04]	F 7F000000 01	0.750000000 01
[1.00000000e+00 1.25000000e-01	4.25000000e-01 1.23949787e+04]	5.75000000e-01	8.75000000e-01
[1.00000000e+00	4.25000000e-01	5.75000000e-01	8.25000000e-01
L	1.75000000e-01	1.04219029e+04]	01100000000	0.1200000000
[1.00000000e+00	4.25000000e-01	5.75000000e-01	7.75000000e-01
	2.25000000e-01	8.52697400e+03]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	7.25000000e-01
г	2.75000000e-01	6.69642444e+03]	F 7F000000 01	6 75000000 01
[1.00000000e+00 3.25000000e-01	4.25000000e-01 4.92204739e+03]	5.75000000e-01	6.75000000e-01
Г	1.00000000e+00	4.25000000e-01	5.75000000e-01	6.25000000e-01
-	3.75000000e-01	3.19865656e+03]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	5.75000000e-01
_	4.25000000e-01	1.52295448e+03]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	5.25000000e-01
[4.75000000e-01 1.00000000e+00	-1.07028443e+02] 4.25000000e-01	5.75000000e-01	4.75000000e-01
L	5.25000000e-01	-1.69221695e+03]	3.73000000e-01	4.730000000-01
[1.00000000e+00	4.25000000e-01	5.75000000e-01	4.25000000e-01
-	5.75000000e-01	-3.23261125e+03]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	3.75000000e-01
_	6.25000000e-01	-4.72728706e+03]	5 7500000 01	0.05000000.04
[1.00000000e+00 6.75000000e-01	4.25000000e-01 -6.17427523e+03]	5.75000000e-01	3.25000000e-01
[1.00000000e+00	4.25000000e-01	5.75000000e-01	2.75000000e-01
L	7.25000000e-01	-7.57027884e+03]	01100000000	21700000000
[1.00000000e+00	4.25000000e-01	5.75000000e-01	2.25000000e-01
	7.75000000e-01	-8.91011222e+03]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	1.75000000e-01
г	8.25000000e-01	-1.01855693e+04]	F 7F000000 01	1 25000000 01
[1.00000000e+00 8.75000000e-01	4.25000000e-01 -1.13828832e+04]	5.75000000e-01	1.25000000e-01
[1.00000000e+00	4.25000000e-01	5.75000000e-01	7.50000000e-02
L	9.25000000e-01	-1.24756896e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	2.50000000e-02
_	9.75000000e-01	-1.33941235e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	9.75000000e-01
	2.50000000e-02	1.43897400e+04]		

[1.00000000e+00	3.75000000e-01	6.25000000e-01	9.25000000e-01
[7.50000000e-02 1.00000000e+00	1.22580714e+04] 3.75000000e-01	6.25000000e-01	8.75000000e-01
	1.25000000e-01	1.03007812e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	8.25000000e-01
-	1.75000000e-01	8.44800332e+03]	0.050000000 01	7 75000000 01
[1.00000000e+00 2.25000000e-01	3.75000000e-01 6.67337238e+03]	6.25000000e-01	7.75000000e-01
[1.00000000e+00	3.75000000e-01	6.25000000e-01	7.25000000e-01
L	2.750000000e-01	4.96312072e+03]	0.2300000000-01	7.230000000-01
[1.00000000e+00	3.75000000e-01	6.25000000e-01	6.75000000e-01
	3.25000000e-01	3.30904153e+03]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	6.25000000e-01
L	3.75000000e-01	1.70594849e+03]	012000000000000	01200000000
Γ	1.00000000e+00	3.75000000e-01	6.25000000e-01	5.75000000e-01
L	4.25000000e-01	1.50544097e+02]	012000000000000	01700000000
[1.00000000e+00	3.75000000e-01	6.25000000e-01	5.25000000e-01
L	4.750000000e-01	-1.35914133e+03]	0.23000000000000	3.2300000000000000000000000000000000000
[1.00000000e+00	3.75000000e-01	6.25000000e-01	4.75000000e-01
L	5.25000000e-01	-2.82403263e+03]	0.23000000000000	4.730000000000000
г	1.00000000e+00	3.75000000e-01	6.25000000e-01	4.25000000e-01
[5.750000000e-01	-4.24413014e+03]	0.2300000000-01	4.230000000-01
Г	1.00000000e+00	3.75000000e-01	6.25000000e-01	3.75000000e-01
L	6.25000000e-01		0.2300000000-01	3.7500000000-01
г		-5.61850976e+03] 3.75000000e-01	6.25000000e-01	3.25000000e-01
[1.00000000e+00		0.2500000000-01	3.2300000000-01
г	6.75000000e-01	-6.94520258e+03]	6.25000000e-01	2.75000000e-01
[1.00000000e+00	3.75000000e-01	0.2500000000-01	2.7500000000-01
г	7.25000000e-01 1.00000000e+00	-8.22091194e+03] 3.75000000e-01	6.25000000e-01	2.25000000e-01
[0.2500000000-01	2.2500000000-01
г	7.75000000e-01	-9.44045254e+03] 3.75000000e-01	6 25000000 01	1 75000000 01
[1.00000000e+00		6.25000000e-01	1.75000000e-01
г	8.25000000e-01	-1.05956187e+04] 3.75000000e-01	6.25000000e-01	1.25000000e-01
[1.00000000e+00		0.250000000000000	1.23000000e-01
г	8.75000000e-01	-1.16726442e+04]	6 25000000 01	7 50000000 02
[1.00000000e+00	3.75000000e-01	6.25000000e-01	7.50000000e-02
г	9.25000000e-01	-1.26451651e+04]	C 25000000 01	2 50000000 02
[1.00000000e+00	3.75000000e-01	6.25000000e-01	2.50000000e-02
г	9.75000000e-01	-1.34433173e+04]	6 75000000 01	9.75000000e-01
[1.00000000e+00 2.50000000e-02	3.25000000e-01	6.75000000e-01	9.7500000000-01
г	1.00000000e+00	1.20787912e+04] 3.25000000e-01	6.75000000e-01	9.25000000e-01
[7.500000000e-02	1.00674205e+04]	0.75000000000000	9.230000000-01
г	1.00000000e+00	3.25000000e-01	6.75000000e-01	8.75000000e-01
[0.75000000000000	0.750000000e-01
г	1.25000000e-01	8.23042824e+03]	6.75000000e-01	8.25000000e-01
[1.00000000e+00 1.75000000e-01	3.25000000e-01 6.49794826e+03]	0.7500000000-01	0.2500000000-01
г		3.25000000e-01	6.75000000e-01	7 75000000 01
[1.00000000e+00		0.7500000000-01	7.75000000e-01
г	2.25000000e-01	4.84361523e+03]	6.75000000e-01	7 25000000 01
[1.00000000e+00 2.75000000e-01	3.25000000e-01 3.25366145e+03]	0.750000000000000	7.25000000e-01
г		-	6 750000000 01	6 75000000 01
[1.00000000e+00	3.25000000e-01	6.75000000e-01	6.75000000e-01
г	3.25000000e-01 1.00000000e+00	1.71988009e+03] 3.25000000e-01	6.75000000e-01	6.25000000e-01
[0.7500000000000000000000000000000000000	0.250000000E-01
г	3.75000000e-01 1.00000000e+00	2.37084789e+02] 3.25000000e-01	6.75000000e-01	5.75000000e-01
[4.250000000e-01	-1.19802204e+03]	0.730000008-01	J. / J000000E-UI
	7.230000000-01	1.13002204ET03]		

[1.00000000e+00	3.25000000e-01	6.75000000e-01	5.25000000e-01
_	4.75000000e-01	-2.58741018e+03]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	4.75000000e-01
-	5.25000000e-01	-3.93200460e+03]	. =====================================	
[1.00000000e+00	3.25000000e-01	6.75000000e-01	4.25000000e-01
-	5.75000000e-01	-5.23180587e+03]	0.75000000.01	0.75000000.01
[1.00000000e+00	3.25000000e-01	6.75000000e-01	3.75000000e-01
-	6.25000000e-01	-6.48589013e+03]	0.75000000- 04	0.0500000- 04
[1.00000000e+00	3.25000000e-01	6.75000000e-01	3.25000000e-01
г	6.75000000e-01	-7.69228881e+03]	6 75000000 01	2 75000000 01
[1.00000000e+00	3.25000000e-01	6.75000000e-01	2.75000000e-01
г	7.25000000e-01 1.00000000e+00	-8.84770568e+03] 3.25000000e-01	6.75000000e-01	2.25000000e-01
[7.75000000e-01	-9.94695594e+03]	0.75000000000000	2.23000000e-01
Γ	1.00000000e+00	3.25000000e-01	6.75000000e-01	1.75000000e-01
L	8.25000000e-01	-1.09818346e+04]	0.700000000	11700000000 01
[1.00000000e+00	3.25000000e-01	6.75000000e-01	1.25000000e-01
L	8.75000000e-01	-1.19385760e+04]	01100000000	11200000000
Γ	1.00000000e+00	3.25000000e-01	6.75000000e-01	7.50000000e-02
L	9.25000000e-01	-1.27908174e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	2.50000000e-02
-	9.75000000e-01	-1.34686955e+04]		
Γ	1.00000000e+00	2.75000000e-01	7.25000000e-01	9.75000000e-01
_	2.50000000e-02	9.79333556e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	9.25000000e-01
	7.50000000e-02	7.90226276e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	8.75000000e-01
	1.25000000e-01	6.18556841e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	8.25000000e-01
-	1.75000000e-01	4.57338635e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	7.75000000e-01
г	2.25000000e-01	3.03935123e+03]	7 25000000 01	7 25000000 01
	1.00000000e+00	2.75000000e-01 1.56969532e+03]	7.25000000e-01	7.25000000e-01
г	2.75000000e-01 1.00000000e+00	2.75000000e-01	7.25000000e-01	6.75000000e-01
[3.25000000e-01	1.56211754e+02]	7.230000000-01	0.7300000000-01
[1.00000000e+00	2.75000000e-01	7.25000000e-01	6.25000000e-01
L	3.750000000e-01	-1.20628589e+03]	7.2300000000 01	0.230000000 01
[1.00000000e+00	2.75000000e-01	7.25000000e-01	5.75000000e-01
L	4.25000000e-01	-2.52109531e+03]		0000
[1.00000000e+00	2.75000000e-01	7.25000000e-01	5.25000000e-01
-	4.75000000e-01	-3.79018643e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	4.75000000e-01
_	5.25000000e-01	-5.01448445e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	4.25000000e-01
	5.75000000e-01	-6.19399021e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	3.75000000e-01
	6.25000000e-01	-7.32778022e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	3.25000000e-01
_	6.75000000e-01	-8.41388640e+03]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	2.75000000e-01
r	7.25000000e-01	-9.44901313e+03]	7 05000000 04	0.05000000-01
[1.00000000e+00	2.75000000e-01	7.25000000e-01	2.25000000e-01
г	7.75000000e-01	-1.04279763e+04] 2.75000000e-01	7 250000000 01	1 75000000 01
[1.00000000e+00 8.25000000e-01	-1.13425719e+04]	7.25000000e-01	1.75000000e-01
	0.2300000000-01	1,10420/196704]		

[1.00000000e+00	2.75000000e-01	7.25000000e-01	1.25000000e-01
г	8.75000000e-01 1.00000000e+00	-1.21790353e+04] 2.75000000e-01	7.25000000e-01	7.50000000e-02
[9.250000000e-01	-1.29110051e+04]	7.2500000000-01	7.500000000-02
[1.00000000e+00	2.75000000e-01	7.25000000e-01	2.50000000e-02
_	9.75000000e-01	-1.34686193e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	9.75000000e-01
-	2.50000000e-02	7.53596618e+03]	7 7500000- 01	0.05000000- 04
[1.00000000e+00 7.50000000e-02	2.25000000e-01 5.76519130e+03]	7.75000000e-01	9.25000000e-01
[1.00000000e+00	2.25000000e-01	7.75000000e-01	8.75000000e-01
L	1.25000000e-01	4.16879487e+03]	7.700000000	0.700000000
[1.00000000e+00	2.25000000e-01	7.75000000e-01	8.25000000e-01
	1.75000000e-01	2.67691073e+03]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	7.75000000e-01
-	2.25000000e-01	1.26317349e+03]	7 75000000 01	7 05000000 01
[1.00000000e+00 2.75000000e-01	2.25000000e-01 -8.61845673e+01]	7.75000000e-01	7.25000000e-01
[1.00000000e+00	2.25000000e-01	7.75000000e-01	6.75000000e-01
L	3.25000000e-01	-1.37937038e+03]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	6.25000000e-01
	3.75000000e-01	-2.62157048e+03]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	5.75000000e-01
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L	4.750000000e-01	-4.96487716e+03]	7.75000000e-01	3.230000000-01
[1.00000000e+00	2.25000000e-01	7.75000000e-01	4.75000000e-01
_	5.25000000e-01	-6.06887938e+03]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	4.25000000e-01
г	5.75000000e-01	-7.12809058e+03]	7 75000000 01	2 75000000 01
[1.00000000e+00 6.25000000e-01	2.25000000e-01 -8.14158781e+03]	7.75000000e-01	3.75000000e-01
[1.00000000e+00	2.25000000e-01	7.75000000e-01	3.25000000e-01
L	6.75000000e-01	-9.10740366e+03]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	2.75000000e-01
_	7.25000000e-01	-1.00222433e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	2.25000000e-01
[7.75000000e-01 1.00000000e+00	-1.08809238e+04] 2.25000000e-01	7.75000000e-01	1.75000000e-01
L	8.25000000e-01	-1.16752422e+04]	7.700000000	1.700000000
[1.00000000e+00	2.25000000e-01	7.75000000e-01	1.25000000e-01
	8.75000000e-01	-1.23914355e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	7.50000000e-02
г	9.25000000e-01	-1.30031439e+04]	7 75000000 01	2 50000000 02
[1.00000000e+00 9.75000000e-01	2.25000000e-01 -1.34405078e+04]	7.75000000e-01	2.50000000e-02
[1.00000000e+00	1.75000000e-01	8.25000000e-01	9.75000000e-01
-	2.50000000e-02	5.31078646e+03]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	9.25000000e-01
-	7.50000000e-02	3.66030950e+03]	0.0500000	0.75000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	8.75000000e-01
[1.25000000e-01 1.00000000e+00	2.18421099e+03] 1.75000000e-01	8.25000000e-01	8.25000000e-01
L	1.75000000e-01	8.12624756e+02]	1.10000000	3.2000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	7.75000000e-01
	2.25000000e-01	-4.80814590e+02]		

[1.00000000e+00	1.75000000e-01	8.25000000e-01	7.25000000e-01
r	2.75000000e-01	-1.70987483e+03]	0.05000000 01	C 75000000 01
[1.00000000e+00 3.25000000e-01	1.75000000e-01 -2.88276297e+03]	8.25000000e-01	6.75000000e-01
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L	3.75000000e-01	-4.00466566e+03]	0.200000000	0.200000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	5.75000000e-01
	4.25000000e-01	-5.07888092e+03]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	5.25000000e-01
г	4.75000000e-01	-6.10737921e+03]	0.05000000 01	4 75000000 01
[1.00000000e+00 5.25000000e-01	1.75000000e-01 -7.09108640e+03	8.25000000e-01	4.75000000e-01
[1.00000000e+00	1.75000000e-01	8.25000000e-01	4.25000000e-01
L	5.75000000e-01	-8.03000430e+03]	01200000000	11200000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	3.75000000e-01
	6.25000000e-01	-8.92321065e+03]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	3.25000000e-01
-	6.75000000e-01	-9.76873895e+03]	0.0500000- 04	0.75000000- 04
[1.00000000e+00 7.25000000e-01	1.75000000e-01 -1.05632956e+04]	8.25000000e-01	2.75000000e-01
[1.00000000e+00	1.75000000e-01	8.25000000e-01	2.25000000e-01
L	7.75000000e-01	-1.13016988e+04]	01200000000	21200000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	1.75000000e-01
	8.25000000e-01	-1.19757476e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	1.25000000e-01
-	8.75000000e-01	-1.25716810e+04]	0.05000000 01	7 50000000 00
[1.00000000e+00 9.25000000e-01	1.75000000e-01 -1.30631414e+04]	8.25000000e-01	7.50000000e-02
Г	1.00000000e+00	1.75000000e-01	8.25000000e-01	2.50000000e-02
L	9.75000000e-01	-1.33802722e+04]	0.200000000	2.000000000
[1.00000000e+00	1.25000000e-01	8.75000000e-01	9.75000000e-01
	2.50000000e-02	3.12468022e+03]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	9.25000000e-01
г	7.50000000e-02	1.59450118e+03]	8.75000000e-01	8.75000000e-01
[1.00000000e+00 1.25000000e-01	1.25000000e-01 2.38700592e+02]	8.7500000000-01	8.7500000000-01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	8.25000000e-01
	1.75000000e-01	-1.01258773e+03]	0110000000000	0.20000000
[1.00000000e+00	1.25000000e-01	8.75000000e-01	7.75000000e-01
	2.25000000e-01	-2.18572921e+03]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	7.25000000e-01
г	2.75000000e-01	-3.29449166e+03]	0 75000000 01	6 75000000 01
[1.00000000e+00 3.25000000e-01	1.25000000e-01 -4.34708220e+03]	8.75000000e-01	6.75000000e-01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	6.25000000e-01
L	3.75000000e-01	-5.34868765e+03]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	5.75000000e-01
_	4.25000000e-01	-6.30260631e+03]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	5.25000000e-01
г	4.75000000e-01 1.00000000e+00	-7.21080901e+03] 1.25000000e-01	8.75000000e-01	4.75000000e-01
[5.25000000e-01	-8.07422219e+03]	8.7500000000-01	4.750000000-01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	4.25000000e-01
_	5.75000000e-01	-8.89284835e+03]		-
[1.00000000e+00	1.25000000e-01	8.75000000e-01	3.75000000e-01
	6.25000000e-01	-9.66576623e+03]		

[1.00000000e+00	1.25000000e-01	8.75000000e-01	3.25000000e-01
г	6.75000000e-01 1.00000000e+00	-1.03910105e+04] 1.25000000e-01	8.75000000e-01	2.75000000e-01
[7.250000000e-01	-1.10652891e+04]	8.7500000000-01	2.750000000-01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	2.25000000e-01
-	7.75000000e-01	-1.16834223e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	1.75000000e-01
-	8.25000000e-01	-1.22372111e+04]	0.7500000.01	4 05000000 04
[1.00000000e+00 8.75000000e-01	1.25000000e-01 -1.27128973e+04]	8.75000000e-01	1.25000000e-01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	7.50000000e-02
L	9.25000000e-01	-1.30841268e+04]	0.700000000	7.000000000 02
[1.00000000e+00	1.25000000e-01	8.75000000e-01	2.50000000e-02
_	9.75000000e-01	-1.32810463e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	9.75000000e-01
-	2.50000000e-02	9.90830134e+02]	0.0500000.01	0.05000000.04
[1.00000000e+00	7.50000000e-02	9.25000000e-01	9.25000000e-01
[7.50000000e-02 1.00000000e+00	-4.19050985e+02] 7.50000000e-02	9.25000000e-01	8.75000000e-01
L	1.250000000e-01	-1.65455366e+03]	3.230000000 01	0.7300000000
[1.00000000e+00	7.50000000e-02	9.25000000e-01	8.25000000e-01
_	1.75000000e-01	-2.78554408e+03]		
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-	2.25000000e-01	-3.83838769e+03]	0.0500000- 04	7 05000000 04
[1.00000000e+00	7.50000000e-02	9.25000000e-01	7.25000000e-01
[2.75000000e-01 1.00000000e+00	-4.82685240e+03] 7.50000000e-02	9.25000000e-01	6.75000000e-01
L	3.25000000e-01	-5.75914545e+03]	01200000000	01700000000
[1.00000000e+00	7.50000000e-02	9.25000000e-01	6.25000000e-01
	3.75000000e-01	-6.64045389e+03]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	5.75000000e-01
г	4.25000000e-01 1.00000000e+00	-7.47407637e+03] 7.50000000e-02	9.25000000e-01	5.25000000e-01
[4.750000000e-01	-8.26198424e+03]	9.230000000-01	3.230000000-01
[1.00000000e+00	7.50000000e-02	9.25000000e-01	4.75000000e-01
-	5.25000000e-01	-9.00510464e+03]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	4.25000000e-01
-	5.75000000e-01	-9.70344106e+03]	0.0500000.01	0.75000000.01
[1.00000000e+00	7.50000000e-02	9.25000000e-01	3.75000000e-01
[6.25000000e-01 1.00000000e+00	-1.03560735e+04] 7.50000000e-02	9.25000000e-01	3.25000000e-01
L	6.75000000e-01	-1.09610382e+04]	01200000000	0.200000000
[1.00000000e+00	7.50000000e-02	9.25000000e-01	2.75000000e-01
	7.25000000e-01	-1.15150452e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	2.25000000e-01
г	7.75000000e-01	-1.20129170e+04]	0.05000000 01	1 75000000 01
[1.00000000e+00 8.25000000e-01	7.50000000e-02 -1.24464579e+04]	9.25000000e-01	1.75000000e-01
[1.00000000e+00	7.50000000e-02	9.25000000e-01	1.25000000e-01
L	8.75000000e-01	-1.28019130e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	7.50000000e-02
_	9.25000000e-01	-1.30529325e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	2.50000000e-02
[9.75000000e-01 1.00000000e+00	-1.31296682e+04] 2.50000000e-02	9.75000000e-01	9.75000000e-01
L	2.50000000e-02	-1.05583073e+03]	3.7.000000C 0I	3.755555555

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1.00000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  9.25000000e-01
              7.50000000e-02
                              -2.34541393e+031
                               2.50000000e-02
                                                 9.75000000e-01
             1.00000000e+00
                                                                  8.75000000e-01
              1.25000000e-01
                              -3.46061868e+03]
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  8.25000000e-01
              1.75000000e-01
                              -4.47131120e+031
             1.00000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  7.75000000e-01
              2.25000000e-01
                              -5.40385697e+031
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  7.25000000e-01
              2.75000000e-01
                              -6.27202399e+03]
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  6.75000000e-01
              3.25000000e-01
                              -7.08401968e+031
             1.00000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  6.25000000e-01
              3.75000000e-01
                              -7.84503139e+03]
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  5.75000000e-01
                              -8.55835821e+03]
              4.25000000e-01
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  5.25000000e-01
              4.75000000e-01
                              -9.22597217e+031
             1.00000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  4.75000000e-01
              5.25000000e-01
                              -9.84880135e+03]
             1.00000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  4.25000000e-01
                              -1.04268505e+04]
              5.75000000e-01
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  3.75000000e-01
              6.25000000e-01
                              -1.09592012e+04]
              1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  3.25000000e-01
              6.75000000e-01
                              -1.14438918e+04]
                               2.50000000e-02
              1.00000000e+00
                                                 9.75000000e-01
                                                                  2.75000000e-01
              7.25000000e-01
                              -1.18776349e+04]
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  2.25000000e-01
              7.75000000e-01
                              -1.22552564e+04]
                               2.50000000e-02
             1.0000000e+00
                                                 9.75000000e-01
                                                                  1.75000000e-01
              8.25000000e-01
                              -1.25685641e+04]
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  1.25000000e-01
              8.75000000e-01
                              -1.28038081e+04]
              1.00000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  7.50000000e-02
              9.25000000e-01
                              -1.29346437e+04]
             1.0000000e+00
                               2.50000000e-02
                                                 9.75000000e-01
                                                                  2.50000000e-02
              9.75000000e-01
                              -1.28912291e+04]]
In [56]:
         np.set_printoptions(threshold='nan')
         print(points_1473)
             1.00000000e+00
                               1.00000000e-12
                                                 1.0000000e+00
                                                                  1.00000000e-12
              1.00000000e+00
                              -1.98804025e+04]
             1.0000000e+00
                               1.00000000e-12
                                                 1.0000000e+00
                                                                  1.0000000e+00
              1.00000000e-12
                              -1.78512898e+04]
                               1.0000000e+00
             1.00000000e+00
                                                 1.00000000e-12
                                                                  1.00000000e-12
              1.00000000e+00
                              -2.31248881e+04]
             1.00000000e+00
                               1.00000000e+00
                                                 1.00000000e-12
                                                                  1.0000000e+00
              1.00000000e-12
                               1.90314389e+04]
                               9.75000000e-01
             1.0000000e+00
                                                 2.50000000e-02
                                                                  9.75000000e-01
              2.50000000e-02
                               1.60067012e+04]
             1.00000000e+00
                               9.75000000e-01
                                                 2.50000000e-02
                                                                  9.25000000e-01
              7.5000000e-02
                               1.30336994e+04]
```

1.0000000e+00

9.75000000e-01

2.50000000e-02

8.75000000e-01

	1 25000000 01	1 0200002001041		
г	1.25000000e-01 1.00000000e+00	1.03000820e+04] 9.75000000e-01	2.50000000e-02	8.25000000e-01
[1.750000000e-01	7.70993764e+03]	2.300000000-02	0.230000000-01
[1.00000000e+00	9.75000000e-01	2.50000000e-02	7.75000000e-01
L	2.25000000e-01	5.22707241e+03]	2.000000000 02	7.700000000
[1.00000000e+00	9.75000000e-01	2.50000000e-02	7.25000000e-01
L	2.75000000e-01	2.83258625e+03]	210000000000000000000000000000000000000	11200000000
[1.00000000e+00	9.75000000e-01	2.50000000e-02	6.75000000e-01
L	3.25000000e-01	5.15213016e+02]		· · · · · · · · · · · · · · · · · · ·
[1.00000000e+00	9.75000000e-01	2.50000000e-02	6.25000000e-01
L	3.75000000e-01	-1.73216688e+03]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	5.75000000e-01
_	4.25000000e-01	-3.91408004e+03]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	5.25000000e-01
	4.75000000e-01	-6.03323016e+03]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	4.75000000e-01
	5.25000000e-01	-8.09088649e+03]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	4.25000000e-01
	5.75000000e-01	-1.00870490e+04]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	3.75000000e-01
	6.25000000e-01	-1.20204485e+04]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	3.25000000e-01
	6.75000000e-01	-1.38883813e+04]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	2.75000000e-01
_	7.25000000e-01	-1.56863207e+04]		
[1.00000000e+00	9.75000000e-01	2.50000000e-02	2.25000000e-01
-	7.75000000e-01	-1.74071472e+04]		. =====================================
[1.00000000e+00	9.75000000e-01	2.50000000e-02	1.75000000e-01
-	8.25000000e-01	-1.90395946e+04]	0 5000000- 00	4 0500000- 04
[1.00000000e+00	9.75000000e-01	2.50000000e-02	1.25000000e-01
г	8.75000000e-01	-2.05647630e+04]	2 50000000 02	7 50000000 02
[1.00000000e+00 9.25000000e-01	9.75000000e-01 -2.19464582e+04]	2.50000000e-02	7.50000000e-02
[1.00000000e+00	9.75000000e-01	2.50000000e-02	2.50000000e-02
L	9.750000000e-01	-2.30887690e+04]	2.300000000-02	2.300000000-02
[1.00000000e+00	9.25000000e-01	7.50000000e-02	9.75000000e-01
L	2.500000000e-02	1.37550521e+04]	7.500000000 02	3.730000000000000
[1.00000000e+00	9.25000000e-01	7.50000000e-02	9.25000000e-01
L	7.50000000e-02	1.08823703e+04]	110000000000000000000000000000000000000	0.20000000
[1.00000000e+00	9.25000000e-01	7.50000000e-02	8.75000000e-01
L	1.25000000e-01	8.24907290e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	8.25000000e-01
-	1.75000000e-01	5.75924861e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	7.75000000e-01
_	2.25000000e-01	3.37670342e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	7.25000000e-01
	2.75000000e-01	1.08253729e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	6.75000000e-01
	3.25000000e-01	-1.13451590e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	6.25000000e-01
	3.75000000e-01	-3.28157575e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	5.75000000e-01
_	4.25000000e-01	-5.36316887e+03]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	5.25000000e-01
_	4.75000000e-01	-7.38199895e+03]	= = 000000000000000000000000000000000	. =====================================
[1.00000000e+00	9.25000000e-01	7.50000000e-02	4.75000000e-01

	E 05000000 01	0.00000004040001		
г	5.25000000e-01 1.00000000e+00	-9.33933524e+03] 9.25000000e-01	7.50000000e-02	4.25000000e-01
[5.750000000e-01	-1.12351777e+04]	7.500000000-02	4.250000000-01
[1.00000000e+00	9.25000000e-01	7.50000000e-02	3.75000000e-01
L	6.25000000e-01	-1.30682572e+04]	110000000000000000000000000000000000000	0.700000000
[1.00000000e+00	9.25000000e-01	7.50000000e-02	3.25000000e-01
L	6.75000000e-01	-1.48358699e+04]	110000000000000000000000000000000000000	0.20000000
[1.00000000e+00	9.25000000e-01	7.50000000e-02	2.75000000e-01
	7.25000000e-01	-1.65334893e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	2.25000000e-01
-	7.75000000e-01	-1.81539958e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	1.75000000e-01
_	8.25000000e-01	-1.96861231e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	1.25000000e-01
	8.75000000e-01	-2.11109714e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	7.50000000e-02
	9.25000000e-01	-2.23923466e+04]		
[1.00000000e+00	9.25000000e-01	7.50000000e-02	2.50000000e-02
	9.75000000e-01	-2.34343374e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	9.75000000e-01
_	2.50000000e-02	1.16230951e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	9.25000000e-01
_	7.50000000e-02	8.85073336e+03]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	8.75000000e-01
_	1.25000000e-01	6.31775603e+03]	4 0500000 04	0.0500000.01
[1.00000000e+00	8.75000000e-01	1.25000000e-01	8.25000000e-01
г	1.75000000e-01	3.92825177e+03]	1 05000000 01	7 75000000 01
[1.00000000e+00	8.75000000e-01	1.25000000e-01	7.75000000e-01
г	2.25000000e-01	1.64602662e+03] 8.75000000e-01	1 25000000 01	7 25000000 01
[1.00000000e+00 2.75000000e-01	-5.47819463e+02]	1.25000000e-01	7.25000000e-01
[1.00000000e+00	8.75000000e-01	1.25000000e-01	6.75000000e-01
L	3.250000000e-01	-2.66455261e+03]	1.230000000-01	0.7500000000-01
[1.00000000e+00	8.75000000e-01	1.25000000e-01	6.25000000e-01
L	3.750000000e-01	-4.71129242e+03]	1.2000000000000	0.200000000
[1.00000000e+00	8.75000000e-01	1.25000000e-01	5.75000000e-01
L	4.25000000e-01	-6.69256550e+03]	1.200000000	01100000000
[1.00000000e+00	8.75000000e-01	1.25000000e-01	5.25000000e-01
_	4.75000000e-01	-8.61107554e+03]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	4.75000000e-01
-	5.25000000e-01	-1.04680918e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	4.25000000e-01
	5.75000000e-01	-1.22636142e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	3.75000000e-01
	6.25000000e-01	-1.39963737e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	3.25000000e-01
	6.75000000e-01	-1.56636663e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	2.75000000e-01
_	7.25000000e-01	-1.72609657e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	2.25000000e-01
_	7.75000000e-01	-1.87811521e+04]		
[1.00000000e+00	8.75000000e-01	1.25000000e-01	1.75000000e-01
г	8.25000000e-01	-2.02129594e+04]	1 0500000- 01	1 0500000- 01
	1.00000000e+00	8.75000000e-01	1.25000000e-01	1.25000000e-01
г	8.75000000e-01	-2.15374877e+04]	1 25000000 01	7 500000000 00
[1.00000000e+00	8.75000000e-01	1.25000000e-01	7.50000000e-02

	0.0500000- 04	0.07405400-+043		
г	9.25000000e-01	-2.27185428e+04]	1 25000000 01	2.50000000e-02
[1.00000000e+00 9.75000000e-01	8.75000000e-01 -2.36602136e+04]	1.25000000e-01	2.500000000-02
[1.00000000e+00	8.25000000e-01	1.75000000e-01	9.75000000e-01
L	2.500000000e-02	9.56287468e+03]	1.7500000000-01	9.730000000-01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	9.25000000e-01
L	7.500000000e-02	6.89083299e+03]	1.730000000 01	3.230000000000000
[1.000000000e+00	8.25000000e-01	1.75000000e-01	8.75000000e-01
L	1.25000000e-01	4.45817569e+03]	11.00000000	01100000000
[1.00000000e+00	8.25000000e-01	1.75000000e-01	8.25000000e-01
_	1.75000000e-01	2.16899147e+03]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	7.75000000e-01
-	2.25000000e-01	-1.29136324e+01]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	7.25000000e-01
	2.75000000e-01	-2.10643968e+03]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	6.75000000e-01
	3.25000000e-01	-4.12285279e+03]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	6.25000000e-01
	3.75000000e-01	-6.06927256e+03]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	5.75000000e-01
_	4.25000000e-01	-7.95022559e+03]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	5.25000000e-01
_	4.75000000e-01	-9.76841560e+03]	4 7500000- 04	4 75000000 - 04
[1.00000000e+00	8.25000000e-01	1.75000000e-01	4.75000000e-01
г	5.25000000e-01	-1.15251118e+04]	1 75000000 01	4 25000000 01
	1.00000000e+00	8.25000000e-01	1.75000000e-01	4.25000000e-01
г	5.75000000e-01 1.00000000e+00	-1.32203142e+04] 8.25000000e-01	1.75000000e-01	3.75000000e-01
	6.25000000e-01	-1.48527536e+04]	1.7500000000-01	3.7500000000-01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	3.25000000e-01
L	6.750000000e-01	-1.64197262e+04]	1.730000000 01	3.230000000 01
[1.00000000e+00	8.25000000e-01	1.75000000e-01	2.75000000e-01
L	7.25000000e-01	-1.79167055e+04]	11.00000000	21100000000
[1.00000000e+00	8.25000000e-01	1.75000000e-01	2.25000000e-01
_	7.75000000e-01	-1.93365719e+04]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	1.75000000e-01
_	8.25000000e-01	-2.06680592e+04]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	1.25000000e-01
	8.75000000e-01	-2.18922674e+04]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	7.50000000e-02
	9.25000000e-01	-2.29730025e+04]		
[1.00000000e+00	8.25000000e-01	1.75000000e-01	2.50000000e-02
_	9.75000000e-01	-2.38143533e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	9.75000000e-01
_	2.50000000e-02	7.55629382e+03]	0.05000000.01	0.0500000.01
[1.00000000e+00	7.75000000e-01	2.25000000e-01	9.25000000e-01
г	7.50000000e-02	4.98457216e+03]	2 25000000 01	0 75000000 01
	1.00000000e+00	7.75000000e-01	2.25000000e-01	8.75000000e-01
г	1.25000000e-01 1.00000000e+00	2.65223491e+03] 7.75000000e-01	2.25000000e-01	8.25000000e-01
	1.750000000e-01	4.63370733e+02]	2.230000000-01	0.230000000-01
[1.00000000e+00	7.75000000e-01	2.25000000e-01	7.75000000e-01
L	2.25000000e-01	-1.61821433e+03]	2.20000000-01	7.1.0000000E-0T
[1.00000000e+00	7.75000000e-01	2.25000000e-01	7.25000000e-01
L	2.750000000e-01	-3.61142034e+03]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	6.75000000e-01
-		-	-	, -

	2 25000000 01	E E07E10400+001		
[3.25000000e-01 1.00000000e+00	-5.52751340e+03] 7.75000000e-01	2.25000000e-01	6.25000000e-01
L	3.750000000e-01	-7.37361314e+03]	2.230000000-01	0.230000000-01
[1.00000000e+00	7.75000000e-01	2.25000000e-01	5.75000000e-01
L	4.25000000e-01	-9.15424613e+03]	2.200000000	0.700000000
[1.00000000e+00	7.75000000e-01	2.25000000e-01	5.25000000e-01
_	4.75000000e-01	-1.08721161e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	4.75000000e-01
_	5.25000000e-01	-1.25284923e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	4.25000000e-01
	5.75000000e-01	-1.41233746e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	3.75000000e-01
_	6.25000000e-01	-1.56554940e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	3.25000000e-01
_	6.75000000e-01	-1.71221466e+04]	0.05000000 01	0 75000000 01
[1.00000000e+00 7.25000000e-01	7.75000000e-01	2.25000000e-01	2.75000000e-01
г	1.00000000e+00	-1.85188058e+04] 7.75000000e-01	2.25000000e-01	2.25000000e-01
[7.750000000e-01	-1.98383522e+04]	2.2500000000-01	2.250000000-01
[1.00000000e+00	7.75000000e-01	2.25000000e-01	1.75000000e-01
L	8.25000000e-01	-2.10695195e+04]	2.23000000000000	1.7500000000
[1.00000000e+00	7.75000000e-01	2.25000000e-01	1.25000000e-01
	8.75000000e-01	-2.21934076e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	7.50000000e-02
_	9.25000000e-01	-2.31738227e+04]		
[1.00000000e+00	7.75000000e-01	2.25000000e-01	2.50000000e-02
_	9.75000000e-01	-2.39148534e+04]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	9.75000000e-01
	2.50000000e-02	5.59390249e+03]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	9.25000000e-01
_	7.50000000e-02	3.12250087e+03]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	8.75000000e-01
_	1.25000000e-01	8.90483658e+02]	0.75000000 01	0.05000000 04
[1.00000000e+00	7.25000000e-01	2.75000000e-01	8.25000000e-01
г	1.75000000e-01 1.00000000e+00	-1.19806048e+03]	2 75000000 01	7 75000000 01
[2.250000000e-01	7.25000000e-01 -3.17932550e+03]	2.75000000e-01	7.75000000e-01
[1.00000000e+00	7.25000000e-01	2.75000000e-01	7.25000000e-01
L	2.750000000e-01	-5.07221147e+03]	2.7300000000 01	7.230000000000000
[1.00000000e+00	7.25000000e-01	2.75000000e-01	6.75000000e-01
	3.25000000e-01	-6.88798449e+03]		· · · · · · · · · · · · · · · · · · ·
[1.00000000e+00	7.25000000e-01	2.75000000e-01	6.25000000e-01
-	3.75000000e-01	-8.63376418e+03]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	5.75000000e-01
	4.25000000e-01	-1.03140771e+04]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	5.25000000e-01
	4.75000000e-01	-1.19316271e+04]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	4.75000000e-01
_	5.25000000e-01	-1.34876832e+04]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	4.25000000e-01
r	5.75000000e-01	-1.49822455e+04]	0.75000000 04	0.75000000 - 01
[1.00000000e+00	7.25000000e-01	2.75000000e-01	3.75000000e-01
г	6.25000000e-01	-1.64140448e+04]	2 75000000 01	2 25000000 01
[1.00000000e+00 6.75000000e-01	7.25000000e-01	2.75000000e-01	3.25000000e-01
Г	1.00000000e+00	-1.77803774e+04] 7.25000000e-01	2.75000000e-01	2.75000000e-01
[1.00000000e+00	1.2300000000-01	2.73000000E-01	2.730000000-01

	7 05000000 04	4 00707400-+047		
г	7.25000000e-01	-1.90767166e+04]	2 75000000 01	2.25000000e-01
[1.00000000e+00 7.75000000e-01	7.25000000e-01 -2.02959430e+04]	2.75000000e-01	2.2500000000-01
г	1.00000000e+00	7.25000000e-01	2.75000000e-01	1.75000000e-01
[8.25000000e-01	-2.14267902e+04]	2.7500000000-01	1.730000000-01
[1.00000000e+00	7.25000000e-01	2.75000000e-01	1.25000000e-01
L	8.750000000e-01	-2.24503584e+04]	2.700000000	1.200000000
[1.00000000e+00	7.25000000e-01	2.75000000e-01	7.50000000e-02
L	9.25000000e-01	-2.33304535e+04]		
[1.00000000e+00	7.25000000e-01	2.75000000e-01	2.50000000e-02
_	9.75000000e-01	-2.39711642e+04]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	9.75000000e-01
	2.50000000e-02	3.67006762e+03]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	9.25000000e-01
	7.50000000e-02	1.29898605e+03]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	8.75000000e-01
_	1.25000000e-01	-8.32711125e+02]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	8.25000000e-01
г	1.75000000e-01	-2.82093522e+03]	2 25000000 01	7 75000000 01
[1.00000000e+00 2.25000000e-01	6.75000000e-01 -4.70188020e+03]	3.25000000e-01	7.75000000e-01
[1.00000000e+00	6.75000000e-01	3.25000000e-01	7.25000000e-01
L	2.750000000e-01	-6.49444613e+03]	3.230000000 01	7.230000000000000
[1.00000000e+00	6.75000000e-01	3.25000000e-01	6.75000000e-01
-	3.25000000e-01	-8.20989911e+03]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	6.25000000e-01
	3.75000000e-01	-9.85535876e+03]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	5.75000000e-01
_	4.25000000e-01	-1.14353517e+04]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	5.25000000e-01
_	4.75000000e-01	-1.29525816e+04]	0.05000000 01	4 75000000 01
[1.00000000e+00 5.25000000e-01	6.75000000e-01 -1.44083177e+04]	3.25000000e-01	4.75000000e-01
[1.00000000e+00	6.75000000e-01	3.25000000e-01	4.25000000e-01
L	5.75000000e-01	-1.58025600e+04]	0.200000000	4.20000000000000
[1.00000000e+00	6.75000000e-01	3.25000000e-01	3.75000000e-01
_	6.25000000e-01	-1.71340392e+04]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	3.25000000e-01
	6.75000000e-01	-1.84000518e+04]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	2.75000000e-01
	7.25000000e-01	-1.95960710e+04]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	2.25000000e-01
_	7.75000000e-01	-2.07149774e+04]	0.0500000- 04	4 75000000 04
[1.00000000e+00	6.75000000e-01	3.25000000e-01	1.75000000e-01
[8.25000000e-01 1.00000000e+00	-2.17455047e+04] 6.75000000e-01	3.25000000e-01	1.25000000e-01
L	8.750000000e-01	-2.26687529e+04]	3.230000000-01	1.230000000-01
[1.00000000e+00	6.75000000e-01	3.25000000e-01	7.50000000e-02
_	9.25000000e-01	-2.34485281e+04]		
[1.00000000e+00	6.75000000e-01	3.25000000e-01	2.50000000e-02
-	9.75000000e-01	-2.39889189e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	9.75000000e-01
_	2.50000000e-02	1.78122943e+03]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	9.25000000e-01
r	7.50000000e-02	-4.89532107e+02]	0.75000000 04	0.75000000 - 01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	8.75000000e-01

	4 0500000 04	0. 50000004		
_	1.25000000e-01	-2.52090924e+03]	0.75000000 01	0 05000000 01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	8.25000000e-01
г	1.75000000e-01	-4.40881329e+03]	0.75000000 01	7 75000000 01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	7.75000000e-01
г	2.25000000e-01	-6.18943824e+03]	2 75000000 01	7 25000000 01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	7.25000000e-01
г	2.75000000e-01 1.00000000e+00	-7.88168412e+03]	2 75000000 01	6 75000000 01
[3.250000000e-01	6.25000000e-01 -9.49681707e+03]	3.75000000e-01	6.75000000e-01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	6.25000000e-01
L	3.750000000e-01	-1.10419567e+04]	3.7300000000-01	0.230000000-01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	5.75000000e-01
L	4.250000000e-01	-1.25216296e+04]	3.7300000000-01	3.730000000-01
[1.00000000e+00	6.25000000e-01	3.75000000e-01	5.25000000e-01
L	4.750000000e-01	-1.39385394e+04]	3.730000000 01	3.23000000000000
[1.00000000e+00	6.25000000e-01	3.75000000e-01	4.75000000e-01
L	5.25000000e-01	-1.52939555e+04]	01100000000	11100000000
[1.00000000e+00	6.25000000e-01	3.75000000e-01	4.25000000e-01
L	5.75000000e-01	-1.65878778e+04]	01.00000000	20000000
[1.00000000e+00	6.25000000e-01	3.75000000e-01	3.75000000e-01
_	6.25000000e-01	-1.78190370e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	3.25000000e-01
L	6.75000000e-01	-1.89847296e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	2.75000000e-01
-	7.25000000e-01	-2.00804289e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	2.25000000e-01
_	7.75000000e-01	-2.10990153e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	1.75000000e-01
	8.25000000e-01	-2.20292227e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	1.25000000e-01
	8.75000000e-01	-2.28521510e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	7.50000000e-02
	9.25000000e-01	-2.35316064e+04]		
[1.00000000e+00	6.25000000e-01	3.75000000e-01	2.50000000e-02
	9.75000000e-01	-2.39716776e+04]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	9.75000000e-01
_	2.50000000e-02	-7.48754030e+01]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	9.25000000e-01
_	7.50000000e-02	-2.24531690e+03]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	8.75000000e-01
_	1.25000000e-01	-4.17637399e+03]	4 0500000 - 04	0.050000001
[1.00000000e+00	5.75000000e-01	4.25000000e-01	8.25000000e-01
г	1.75000000e-01	-5.96395800e+03]	4 05000000 01	7 75000000 01
[1.00000000e+00	5.75000000e-01	4.25000000e-01	7.75000000e-01
г	2.25000000e-01	-7.64426290e+03]	4 25000000 01	7 25000000 01
	1.00000000e+00	5.75000000e-01	4.25000000e-01	7.25000000e-01
г	2.75000000e-01	-9.23618875e+03]	4 25000000 01	6.75000000e-01
	1.00000000e+00	5.75000000e-01	4.25000000e-01	0.75000000000-01
г	3.25000000e-01 1.00000000e+00	-1.07510017e+04]	4.25000000e-01	6.25000000e-01
	3.750000000e-01	5.75000000e-01 -1.21958212e+04]	4.2500000000-01	0.2300000000-01
Г	1.00000000e+00	5.75000000e-01	4.25000000e-01	5.75000000e-01
[4.250000000e-01	-1.35751741e+04]	4.23000000C-01	J. / JUUUUUUUE-UI
[1.00000000e+00	5.75000000e-01	4.25000000e-01	5.25000000e-01
L	4.750000000e-01	-1.48917639e+04]	7.2000000C-01	3.23000000E-01
[1.00000000e+00	5.75000000e-01	4.25000000e-01	4.75000000e-01
L		333000000 01		

	F 05000000 01	4 04 4000000 + 0.43		
г	5.25000000e-01 1.00000000e+00	-1.61468600e+04] 5.75000000e-01	4.25000000e-01	4.25000000e-01
[5.750000000e-01	-1.73404623e+04]	4.2500000000-01	4.2500000000-01
г	1.00000000e+00	5.75000000e-01	4.25000000e-01	3.75000000e-01
[6.250000000e-01	-1.84713016e+04]	4.2500000000-01	3.7500000000-01
[1.00000000e+00	5.75000000e-01	4.25000000e-01	3.25000000e-01
L	6.750000000e-01	-1.95366742e+04]	4.2300000000000	3.230000000000000
[1.00000000e+00	5.75000000e-01	4.25000000e-01	2.75000000e-01
L	7.25000000e-01	-2.05320536e+04]	11200000000	21100000000
[1.00000000e+00	5.75000000e-01	4.25000000e-01	2.25000000e-01
_	7.75000000e-01	-2.14503201e+04]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	1.75000000e-01
-	8.25000000e-01	-2.22802077e+04]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	1.25000000e-01
_	8.75000000e-01	-2.30028164e+04]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	7.50000000e-02
	9.25000000e-01	-2.35819523e+04]		
[1.00000000e+00	5.75000000e-01	4.25000000e-01	2.50000000e-02
	9.75000000e-01	-2.39217040e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	9.75000000e-01
_	2.50000000e-02	-1.89959871e+03]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	9.25000000e-01
_	7.50000000e-02	-3.96972017e+03]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	8.75000000e-01
_	1.25000000e-01	-5.80045722e+03]	4 75000000 04	0.0500000.01
[1.00000000e+00	5.25000000e-01	4.75000000e-01	8.25000000e-01
_	1.75000000e-01	-7.48772119e+03]	4 75000000- 04	7 75000000- 04
[1.00000000e+00	5.25000000e-01	4.75000000e-01	7.75000000e-01
г	2.25000000e-01	-9.06770605e+03] 5.25000000e-01	4 75000000 01	7 25000000 01
[1.00000000e+00 2.75000000e-01		4.75000000e-01	7.25000000e-01
[1.00000000e+00	-1.05593119e+04] 5.25000000e-01	4.75000000e-01	6.75000000e-01
L	3.250000000e-01	-1.19738047e+04]	4.730000000-01	0.7500000000-01
[1.00000000e+00	5.25000000e-01	4.75000000e-01	6.25000000e-01
L	3.75000000e-01	-1.33183043e+04]	4.7300000000	0.250000000000000
[1.00000000e+00	5.25000000e-01	4.75000000e-01	5.75000000e-01
L	4.25000000e-01	-1.45973371e+04]		01100000000
[1.00000000e+00	5.25000000e-01	4.75000000e-01	5.25000000e-01
_	4.75000000e-01	-1.58136069e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	4.75000000e-01
-	5.25000000e-01	-1.69683830e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	4.25000000e-01
	5.75000000e-01	-1.80616653e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	3.75000000e-01
	6.25000000e-01	-1.90921847e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	3.25000000e-01
	6.75000000e-01	-2.00572374e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	2.75000000e-01
_	7.25000000e-01	-2.09522970e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	2.25000000e-01
_	7.75000000e-01	-2.17702439e+04]		
[1.00000000e+00	5.25000000e-01	4.75000000e-01	1.75000000e-01
r	8.25000000e-01	-2.24998120e+04]	4 75000000 03	4 05000000 - 01
[1.00000000e+00	5.25000000e-01	4.75000000e-01	1.25000000e-01
г	8.75000000e-01	-2.31221013e+04]	4 7E000000 01	7 50000000 00
[1.00000000e+00	5.25000000e-01	4.75000000e-01	7.50000000e-02

	0.0500000.01	0.00000400043		
г	9.25000000e-01	-2.36009180e+04]	4 75000000 01	2.50000000e-02
[1.00000000e+00 9.75000000e-01	5.25000000e-01	4.75000000e-01	2.5000000000-02
[1.00000000e+00	-2.38403508e+04] 4.75000000e-01	5.25000000e-01	9.75000000e-01
L	2.500000000e-02	-3.69357513e+03]	5.2500000000-01	9.7500000000-01
[1.00000000e+00	4.75000000e-01	5.25000000e-01	9.25000000e-01
L	7.500000000e-02	-5.66337654e+03]	3.23000000000000	3.2300000000000000000000000000000000000
[1.00000000e+00	4.75000000e-01	5.25000000e-01	8.75000000e-01
L	1.25000000e-01	-7.39379355e+03]	01200000000	01100000000
[1.00000000e+00	4.75000000e-01	5.25000000e-01	8.25000000e-01
L	1.75000000e-01	-8.98073748e+03]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	7.75000000e-01
_	2.25000000e-01	-1.04604023e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	7.25000000e-01
	2.75000000e-01	-1.18516881e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	6.75000000e-01
	3.25000000e-01	-1.31658609e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	6.25000000e-01
	3.75000000e-01	-1.44100404e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	5.75000000e-01
_	4.25000000e-01	-1.55887532e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	5.25000000e-01
_	4.75000000e-01	-1.67047031e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	4.75000000e-01
_	5.25000000e-01	-1.77591592e+04]	E 0500000 - 04	4 0500000 - 04
[1.00000000e+00	4.75000000e-01	5.25000000e-01	4.25000000e-01
_	5.75000000e-01	-1.87521216e+04]	F 0500000- 04	0.75000000- 04
[1.00000000e+00	4.75000000e-01	5.25000000e-01	3.75000000e-01
г	6.25000000e-01	-1.96823211e+04]	E 25000000 01	2 25000000 01
[1.00000000e+00 6.75000000e-01	4.75000000e-01 -2.05470541e+04]	5.25000000e-01	3.25000000e-01
[1.00000000e+00	4.75000000e-01	5.25000000e-01	2.75000000e-01
L	7.25000000e-01	-2.13417941e+04]	3.230000000-01	2.750000000-01
[1.00000000e+00	4.75000000e-01	5.25000000e-01	2.25000000e-01
L	7.75000000e-01	-2.20594215e+04]	3.23000000 01	2.2500000000000000000000000000000000000
[1.00000000e+00	4.75000000e-01	5.25000000e-01	1.75000000e-01
L	8.25000000e-01	-2.26886704e+04]	0.20000000	
[1.00000000e+00	4.75000000e-01	5.25000000e-01	1.25000000e-01
L	8.75000000e-01	-2.32106408e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	7.50000000e-02
_	9.25000000e-01	-2.35891388e+04]		
[1.00000000e+00	4.75000000e-01	5.25000000e-01	2.50000000e-02
	9.75000000e-01	-2.37282535e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	9.75000000e-01
	2.50000000e-02	-5.45680464e+03]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	9.25000000e-01
	7.50000000e-02	-7.32628601e+03]		
	1.00000000e+00	4.25000000e-01	5.75000000e-01	8.75000000e-01
_	1.25000000e-01	-8.95638298e+03]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	8.25000000e-01
_	1.75000000e-01	-1.04430069e+04]	F 7F000000 5:	7 75000000
[1.00000000e+00	4.25000000e-01	5.75000000e-01	7.75000000e-01
г	2.25000000e-01	-1.18223517e+04]	F 7F000000- 04	7 0500000- 01
[1.00000000e+00	4.25000000e-01	5.75000000e-01	7.25000000e-01
г	2.75000000e-01	-1.31133174e+04]	E 7E000000 01	6 750000000 01
[1.00000000e+00	4.25000000e-01	5.75000000e-01	6.75000000e-01

	0.0500000- 04	4 40074700-1047		
г	3.25000000e-01	-1.43271702e+04]	F 7F000000 01	6 25000000 01
[1.00000000e+00 3.75000000e-01	4.25000000e-01	5.75000000e-01	6.25000000e-01
[1.00000000e+00	-1.54710297e+04] 4.25000000e-01	5.75000000e-01	5.75000000e-01
L	4.250000000e-01	-1.65494225e+04]	3.73000000e-01	3.730000000-01
[1.00000000e+00	4.25000000e-01	5.75000000e-01	5.25000000e-01
L	4.750000000e-01	-1.75650524e+04]	3.730000000-01	3.230000000-01
[1.00000000e+00	4.25000000e-01	5.75000000e-01	4.75000000e-01
L	5.25000000e-01	-1.85191886e+04]	01100000000	11100000000
[1.00000000e+00	4.25000000e-01	5.75000000e-01	4.25000000e-01
_	5.75000000e-01	-1.94118311e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	3.75000000e-01
-	6.25000000e-01	-2.02417110e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	3.25000000e-01
	6.75000000e-01	-2.10061244e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	2.75000000e-01
	7.25000000e-01	-2.17005450e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	2.25000000e-01
	7.75000000e-01	-2.23178533e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	1.75000000e-01
_	8.25000000e-01	-2.28467835e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	1.25000000e-01
_	8.75000000e-01	-2.32684355e+04]		
[1.00000000e+00	4.25000000e-01	5.75000000e-01	7.50000000e-02
_	9.25000000e-01	-2.35466159e+04]	5 7500000 od	0. 50000000
[1.00000000e+00	4.25000000e-01	5.75000000e-01	2.50000000e-02
_	9.75000000e-01	-2.35854135e+04]	0.0500000- 04	0.75000000- 04
[1.00000000e+00	3.75000000e-01	6.25000000e-01	9.75000000e-01
г	2.50000000e-02	-7.18865264e+03]	C 25000000 01	0 05000000 01
	1.00000000e+00 7.50000000e-02	3.75000000e-01 -8.95781397e+03]	6.25000000e-01	9.25000000e-01
[1.00000000e+00	3.75000000e-01	6.25000000e-01	8.75000000e-01
L	1.25000000e-01	-1.04875909e+04]	0.230000000-01	0.750000000-01
[1.00000000e+00	3.75000000e-01	6.25000000e-01	8.25000000e-01
L	1.750000000e-01	-1.18738948e+04]	0.23000000 01	0.250000000000000
[1.00000000e+00	3.75000000e-01	6.25000000e-01	7.75000000e-01
	2.25000000e-01	-1.31529195e+04]	0.20000000	
[1.00000000e+00	3.75000000e-01	6.25000000e-01	7.25000000e-01
_	2.75000000e-01	-1.43435652e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	6.75000000e-01
_	3.25000000e-01	-1.54570980e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	6.25000000e-01
	3.75000000e-01	-1.65006375e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	5.75000000e-01
	4.25000000e-01	-1.74787103e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	5.25000000e-01
	4.75000000e-01	-1.83940202e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	4.75000000e-01
_	5.25000000e-01	-1.92478366e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	4.25000000e-01
_	5.75000000e-01	-2.00401595e+04]		
[1.00000000e+00	3.75000000e-01	6.25000000e-01	3.75000000e-01
r	6.25000000e-01	-2.07697197e+04]	0.0000000 04	0.05000000 - 01
	1.00000000e+00	3.75000000e-01	6.25000000e-01	3.25000000e-01
г	6.75000000e-01	-2.14338139e+04]	6 25000000 01	2 750000000 01
[1.00000000e+00	3.75000000e-01	6.25000000e-01	2.75000000e-01

	7 0500000 04	0.00070455043		
_	7.25000000e-01	-2.20279155e+04]	0.0000000000000000000000000000000000000	0 05000000 01
	1.00000000e+00	3.75000000e-01	6.25000000e-01	2.25000000e-01
г	7.75000000e-01 1.00000000e+00	-2.25449052e+04] 3.75000000e-01	6.25000000e-01	1 75000000 01
[8.250000000e-01		0.2500000000-01	1.75000000e-01
г	1.00000000e+00	-2.29735172e+04] 3.75000000e-01	6.25000000e-01	1.25000000e-01
[8.750000000e-01	-2.32948519e+04]	0.25000000000000	1.250000000-01
[1.0000000e+00	3.75000000e-01	6.25000000e-01	7.50000000e-02
L	9.250000000e-01	-2.34727158e+04]	0.23000000 01	7.500000000 02
[1.00000000e+00	3.75000000e-01	6.25000000e-01	2.50000000e-02
L	9.75000000e-01	-2.34111979e+04]	0.20000000	2.000000000
[1.00000000e+00	3.25000000e-01	6.75000000e-01	9.75000000e-01
_	2.50000000e-02	-8.88776727e+03]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	9.25000000e-01
-	7.50000000e-02	-1.05566086e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	8.75000000e-01
_	1.25000000e-01	-1.19860654e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	8.25000000e-01
	1.75000000e-01	-1.32720493e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	7.75000000e-01
	2.25000000e-01	-1.44507540e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	7.25000000e-01
	2.75000000e-01	-1.55410796e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	6.75000000e-01
_	3.25000000e-01	-1.65542924e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	6.25000000e-01
_	3.75000000e-01	-1.74975119e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	5.75000000e-01
_	4.25000000e-01	-1.83752648e+04]	0.75000000.01	E 0500000 - 04
[1.00000000e+00	3.25000000e-01	6.75000000e-01	5.25000000e-01
г	4.75000000e-01 1.00000000e+00	-1.91902549e+04] 3.25000000e-01	6.75000000e-01	4.75000000e-01
[5.25000000e-01	-1.99437515e+04]	0.75000000000000	4.7500000000-01
[1.00000000e+00	3.25000000e-01	6.75000000e-01	4.25000000e-01
L	5.750000000e-01	-2.06357548e+04]	0.730000000 01	4.230000000000000
[1.00000000e+00	3.25000000e-01	6.75000000e-01	3.75000000e-01
L	6.25000000e-01	-2.12649957e+04]	01100000000	01100000000
[1.00000000e+00	3.25000000e-01	6.75000000e-01	3.25000000e-01
	6.75000000e-01	-2.18287709e+04]		0.20000000
[1.00000000e+00	3.25000000e-01	6.75000000e-01	2.75000000e-01
-	7.25000000e-01	-2.23225540e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	2.25000000e-01
_	7.75000000e-01	-2.27392258e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	1.75000000e-01
	8.25000000e-01	-2.30675207e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	1.25000000e-01
	8.75000000e-01	-2.32885393e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	7.50000000e-02
_	9.25000000e-01	-2.33660882e+04]		
[1.00000000e+00	3.25000000e-01	6.75000000e-01	2.50000000e-02
_	9.75000000e-01	-2.32042571e+04]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	9.75000000e-01
r	2.50000000e-02	-1.05518852e+04]	7 05000000 04	0.05000000 - 01
	1.00000000e+00	2.75000000e-01	7.25000000e-01	9.25000000e-01
г	7.50000000e-02	-1.21204065e+04]	7 250000000 01	Q 750000000 01
[1.00000000e+00	2.75000000e-01	7.25000000e-01	8.75000000e-01

	4 0500000- 04	4 04405400-1043		
г	1.25000000e-01	-1.34495433e+04]	7 250000000 01	0 250000000 01
[1.00000000e+00 1.75000000e-01	2.75000000e-01	7.25000000e-01	8.25000000e-01
[1.00000000e+00	-1.46352071e+04] 2.75000000e-01	7.25000000e-01	7.75000000e-01
L	2.250000000e-01	-1.57135918e+04]	7.2500000000-01	7.7500000000-01
[1.00000000e+00	2.75000000e-01	7.25000000e-01	7.25000000e-01
L	2.750000000e-01	-1.67035974e+04]	7.230000000-01	7.230000000-01
[1.00000000e+00	2.75000000e-01	7.25000000e-01	6.75000000e-01
L	3.25000000e-01	-1.76164902e+04]	11200000000	01100000000
[1.00000000e+00	2.75000000e-01	7.25000000e-01	6.25000000e-01
_	3.75000000e-01	-1.84593897e+04]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	5.75000000e-01
-	4.25000000e-01	-1.92368227e+04]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	5.25000000e-01
_	4.75000000e-01	-1.99514930e+04]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	4.75000000e-01
	5.25000000e-01	-2.06046700e+04]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	4.25000000e-01
	5.75000000e-01	-2.11963539e+04]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	3.75000000e-01
_	6.25000000e-01	-2.17252759e+04]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	3.25000000e-01
_	6.75000000e-01	-2.21887325e+04]		
[1.00000000e+00	2.75000000e-01	7.25000000e-01	2.75000000e-01
_	7.25000000e-01	-2.25821977e+04]	7 0500000- 04	0.0500000- 04
[1.00000000e+00	2.75000000e-01	7.25000000e-01	2.25000000e-01
г	7.75000000e-01	-2.28985526e+04]	7 05000000 01	1 75000000 01
[1.00000000e+00	2.75000000e-01	7.25000000e-01	1.75000000e-01
г	8.25000000e-01	-2.31265317e+04] 2.75000000e-01	7.25000000e-01	1.25000000e-01
[1.00000000e+00 8.75000000e-01	-2.32472358e+04]	7.2500000000-01	1.2500000000-01
[1.00000000e+00	2.75000000e-01	7.25000000e-01	7.50000000e-02
L	9.25000000e-01	-2.32244721e+04]	7.23000000000000	7.500000000 02
[1.00000000e+00	2.75000000e-01	7.25000000e-01	2.50000000e-02
L	9.75000000e-01	-2.29623305e+04]	11200000000	210000000000000000000000000000000000000
[1.00000000e+00	2.25000000e-01	7.75000000e-01	9.75000000e-01
_	2.50000000e-02	-1.21774467e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	9.25000000e-01
-	7.50000000e-02	-1.36456479e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	8.75000000e-01
	1.25000000e-01	-1.48744647e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	8.25000000e-01
	1.75000000e-01	-1.59598085e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	7.75000000e-01
	2.25000000e-01	-1.69378731e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	7.25000000e-01
_	2.75000000e-01	-1.78275587e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	6.75000000e-01
_	3.25000000e-01	-1.86401315e+04]	7 75000000 01	0.0500000.01
	1.00000000e+00	2.25000000e-01	7.75000000e-01	6.25000000e-01
г	3.75000000e-01	-1.93827111e+04]	7 75000000 04	E 7E000000 01
[1.00000000e+00	2.25000000e-01	7.75000000e-01	5.75000000e-01
г	4.25000000e-01	-2.00598243e+04] 2.25000000e-01	7.75000000e-01	5.25000000e-01
	1.00000000e+00 4.75000000e-01	-2.06741749e+04]	1.1300000000000000000000000000000000000	5.25000000 0 E-01
[1.00000000e+00	2.25000000e-01	7.75000000e-01	4.75000000e-01
L	±.000000000000000000000000000000000000	7.7000000C-0T	1112000000C-0I	-1.1.0000000C-0T

	E 25000000 01	2 122702246+041		
г	5.25000000e-01 1.00000000e+00	-2.12270324e+04] 2.25000000e-01	7.75000000e-01	4.25000000e-01
	5.750000000e-01	-2.17183973e+04]	7.7500000000-01	4.250000000-01
[1.00000000e+00	2.25000000e-01	7.75000000e-01	3.75000000e-01
L	6.25000000e-01	-2.21470006e+04]	7.7000000000	0.700000000
[1.00000000e+00	2.25000000e-01	7.75000000e-01	3.25000000e-01
_	6.75000000e-01	-2.25101393e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	2.75000000e-01
_	7.25000000e-01	-2.28032876e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	2.25000000e-01
	7.75000000e-01	-2.30193267e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	1.75000000e-01
	8.25000000e-01	-2.31469915e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	1.25000000e-01
_	8.75000000e-01	-2.31673835e+04]		
[1.00000000e+00	2.25000000e-01	7.75000000e-01	7.50000000e-02
-	9.25000000e-01	-2.30443100e+04]	- 	0 =000000
[1.00000000e+00	2.25000000e-01	7.75000000e-01	2.50000000e-02
_	9.75000000e-01	-2.26818617e+04]	0.05000000 01	0.75000000 01
[1.00000000e+00	1.75000000e-01	8.25000000e-01	9.75000000e-01
г	2.50000000e-02 1.00000000e+00	-1.37588187e+04] 1.75000000e-01	8.25000000e-01	9.25000000e-01
[7.500000000e-02	-1.51266999e+04]	6.25000000e-01	9.230000000-01
[1.00000000e+00	1.75000000e-01	8.25000000e-01	8.75000000e-01
L	1.250000000e-01	-1.62551966e+04]	0.2300000000000	0.750000000000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	8.25000000e-01
L	1.75000000e-01	-1.72402203e+04]	01200000000	0.20000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	7.75000000e-01
_	2.25000000e-01	-1.81179649e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	7.25000000e-01
-	2.75000000e-01	-1.89073305e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	6.75000000e-01
	3.25000000e-01	-1.96195833e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	6.25000000e-01
	3.75000000e-01	-2.02618430e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	5.75000000e-01
_	4.25000000e-01	-2.08386364e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	5.25000000e-01
_	4.75000000e-01	-2.13526675e+04]		. =====================================
[1.00000000e+00	1.75000000e-01	8.25000000e-01	4.75000000e-01
_	5.25000000e-01	-2.18052058e+04]	0.05000000 01	4 05000000 04
[1.00000000e+00	1.75000000e-01	8.25000000e-01	4.25000000e-01
г	5.75000000e-01	-2.21962519e+04]	0 25000000 01	2 75000000 01
[1.00000000e+00 6.25000000e-01	1.75000000e-01 -2.25245372e+04]	8.25000000e-01	3.75000000e-01
[1.00000000e+00	1.75000000e-01	8.25000000e-01	3.25000000e-01
L	6.750000000e-01	-2.27873588e+04]	0.2300000000000	3.2300000000000000000000000000000000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	2.75000000e-01
L	7.25000000e-01	-2.29801912e+04]	0.20000000	21100000000
[1.00000000e+00	1.75000000e-01	8.25000000e-01	2.25000000e-01
-	7.75000000e-01	-2.30959161e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	1.75000000e-01
_	8.25000000e-01	-2.31232689e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	1.25000000e-01
	8.75000000e-01	-2.30433514e+04]		
[1.00000000e+00	1.75000000e-01	8.25000000e-01	7.50000000e-02

	0.0500000- 04	0.00400700-+043		
г	9.25000000e-01	-2.28199720e+04]	0 25000000 01	2 50000000 02
[1.00000000e+00 9.75000000e-01	1.75000000e-01 -2.23572219e+04]	8.25000000e-01	2.50000000e-02
Γ	1.00000000e+00	1.25000000e-01	8.75000000e-01	9.75000000e-01
L	2.50000000e-02	-1.52865511e+04]	0.730000000-01	9.750000000-01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	9.25000000e-01
L	7.50000000e-02	-1.65541122e+04]	0.7300000000 01	3.2300000000000000000000000000000000000
[1.00000000e+00	1.25000000e-01	8.75000000e-01	8.75000000e-01
L	1.25000000e-01	-1.75822890e+04]	01.00000000	01100000000
[1.00000000e+00	1.25000000e-01	8.75000000e-01	8.25000000e-01
_	1.75000000e-01	-1.84669926e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	7.75000000e-01
_	2.25000000e-01	-1.92444172e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	7.25000000e-01
	2.75000000e-01	-1.99334628e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	6.75000000e-01
	3.25000000e-01	-2.05453956e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	6.25000000e-01
_	3.75000000e-01	-2.10873355e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	5.75000000e-01
_	4.25000000e-01	-2.15638092e+04]	0.75000000.01	5 0500000 01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	5.25000000e-01
г	4.75000000e-01	-2.19775209e+04]	0.75000000 01	4 75000000 01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	4.75000000e-01
г	5.25000000e-01	-2.23297403e+04]	8.75000000e-01	4.25000000e-01
	1.00000000e+00 5.75000000e-01	1.25000000e-01 -2.26204681e+04]	6.7500000000-01	4.2500000000-01
[1.00000000e+00	1.25000000e-01	8.75000000e-01	3.75000000e-01
L	6.25000000e-01	-2.28484360e+04]	0.73000000000000	3.7300000000000000000000000000000000000
Γ	1.00000000e+00	1.25000000e-01	8.75000000e-01	3.25000000e-01
L	6.75000000e-01	-2.30109415e+04]	01100000000	0.20000000
Γ	1.00000000e+00	1.25000000e-01	8.75000000e-01	2.75000000e-01
_	7.25000000e-01	-2.31034594e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	2.25000000e-01
-	7.75000000e-01	-2.31188721e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	1.75000000e-01
	8.25000000e-01	-2.30459155e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	1.25000000e-01
	8.75000000e-01	-2.28656924e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	7.50000000e-02
_	9.25000000e-01	-2.25420117e+04]		
[1.00000000e+00	1.25000000e-01	8.75000000e-01	2.50000000e-02
_	9.75000000e-01	-2.19789660e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	9.75000000e-01
_	2.50000000e-02	-1.67425470e+04]	0.0500000- 04	0.0500000- 04
	1.00000000e+00	7.50000000e-02	9.25000000e-01	9.25000000e-01
г	7.50000000e-02	-1.79097881e+04]	9.25000000e-01	8.75000000e-01
	1.00000000e+00 1.25000000e-01	7.50000000e-02 -1.88376447e+04]	9.2500000000-01	8.7500000000-01
г	1.00000000e+00	7.50000000e-02	9.25000000e-01	8.25000000e-01
[1.750000000e-01	-1.96220284e+04]	9.230000000-01	0.230000000-01
[1.0000000e+00	7.50000000e-02	9.25000000e-01	7.75000000e-01
L	2.25000000e-01	-2.02991329e+04]	3.23000000 01	55555555
[1.00000000e+00	7.50000000e-02	9.25000000e-01	7.25000000e-01
L	2.75000000e-01	-2.08878585e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	6.75000000e-01
_				

	2 25000000 01	0 100047146+041		
г	3.25000000e-01 1.00000000e+00	-2.13994714e+04] 7.50000000e-02	9.25000000e-01	6.25000000e-01
[3.750000000e-01	-2.18410915e+04]	9.2500000000-01	0.230000000-01
[1.00000000e+00	7.50000000e-02	9.25000000e-01	5.75000000e-01
L	4.25000000e-01	-2.22172457e+04]	3.23000000000000	3.730000000000000
[1.00000000e+00	7.50000000e-02	9.25000000e-01	5.25000000e-01
L	4.750000000e-01	-2.25306382e+04]	3.23000000000000	3.230000000000000
[1.00000000e+00	7.50000000e-02	9.25000000e-01	4.75000000e-01
L	5.25000000e-01	-2.27825390e+04]	0.20000000	
[1.00000000e+00	7.50000000e-02	9.25000000e-01	4.25000000e-01
L	5.75000000e-01	-2.29729490e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	3.75000000e-01
-	6.25000000e-01	-2.31006004e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	3.25000000e-01
_	6.75000000e-01	-2.31627910e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	2.75000000e-01
	7.25000000e-01	-2.31549964e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	2.25000000e-01
	7.75000000e-01	-2.30700993e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	1.75000000e-01
	8.25000000e-01	-2.28968368e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	1.25000000e-01
_	8.75000000e-01	-2.26163124e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	7.50000000e-02
_	9.25000000e-01	-2.21923365e+04]		
[1.00000000e+00	7.50000000e-02	9.25000000e-01	2.50000000e-02
_	9.75000000e-01	-2.15290028e+04]	0.75000000.01	0.75000000.01
[1.00000000e+00	2.50000000e-02	9.75000000e-01	9.75000000e-01
_	2.50000000e-02	-1.80788506e+04]	0.75000000 01	0 05000000 01
[1.00000000e+00	2.50000000e-02	9.75000000e-01	9.25000000e-01
г	7.50000000e-02 1.00000000e+00	-1.91457717e+04] 2.50000000e-02	9.75000000e-01	8.75000000e-01
[9.7500000000-01	0.7500000000-01
[1.25000000e-01 1.00000000e+00	-1.99733083e+04] 2.50000000e-02	9.75000000e-01	8.25000000e-01
L	1.750000000e-01	-2.06573719e+04]	9.750000000-01	0.230000000-01
[1.00000000e+00	2.50000000e-02	9.75000000e-01	7.75000000e-01
L	2.25000000e-01	-2.12341564e+04]	3.7300000000 01	7.730000000 01
[1.00000000e+00	2.50000000e-02	9.75000000e-01	7.25000000e-01
L	2.75000000e-01	-2.17225621e+04]	01.100000000	
[1.00000000e+00	2.50000000e-02	9.75000000e-01	6.75000000e-01
L	3.25000000e-01	-2.21338551e+04]		
[1.00000000e+00	2.50000000e-02	9.75000000e-01	6.25000000e-01
_	3.75000000e-01	-2.24751555e+04]		
[1.00000000e+00	2.50000000e-02	9.75000000e-01	5.75000000e-01
_	4.25000000e-01	-2.27509903e+04]		
[1.00000000e+00	2.50000000e-02	9.75000000e-01	5.25000000e-01
	4.75000000e-01	-2.29640638e+04]		
[1.00000000e+00	2.50000000e-02	9.75000000e-01	4.75000000e-01
	5.25000000e-01	-2.31156465e+04]		
[1.00000000e+00	2.50000000e-02	9.75000000e-01	4.25000000e-01
	5.75000000e-01	-2.32057395e+04]		
[1.00000000e+00	2.50000000e-02	9.75000000e-01	3.75000000e-01
_	6.25000000e-01	-2.32330754e+04]		
[1.00000000e+00	2.50000000e-02	9.75000000e-01	3.25000000e-01
-	6.75000000e-01	-2.31949527e+04]	0.75000000	0.75000000
[1.00000000e+00	2.50000000e-02	9.75000000e-01	2.75000000e-01

```
1.00000000e+00
                              2.50000000e-02
                                               9.75000000e-01
                                                                1.75000000e-01
             8.25000000e-01
                             -2.26280795e+04]
          [ 1.0000000e+00
                              2.50000000e-02
                                                                1.25000000e-01
                                               9.75000000e-01
             8.75000000e-01
                             -2.22472595e+04]
             1.00000000e+00
                              2.50000000e-02
                                                                7.50000000e-02
                                               9.75000000e-01
             9.25000000e-01
                             -2.17229956e+041
             1.00000000e+00
                              2.50000000e-02
                                               9.75000000e-01
                                                                2.5000000e-02
             9.75000000e-01
                             -2.09593835e+04]]
         with open('Ni-H-Austin.tdb', 'r') as fin:
In [57]:
             print fin.read()
         $ Database file written 2014- 6-12
         $ From database: User data 2014. 6.12
                       ELECTRON GAS
          ELEMENT /-
                                                 0.0000E+00 0.0000E+00 0.0000E+00!
          ELEMENT VA
                       VACUUM
                                                 0.0000E+00 0.0000E+00 0.0000E+00!
                       1/2 MOLE H2(GAS)
          ELEMENT H
                                                 1.0079E+00 4.2340E+03 6.5285E+01!
                       FCC_A1
          ELEMENT NI
                                                 5.8690E+01 4.7870E+03 2.9796E+01!
          FUNCTION F10598T
                              2.98150E+02 +211801.621+24.4989816*T-20.78611*T*LN(T)
                6.00000E+03
                              N !
          FUNCTION F10790T
                              2.98150E+02 +374456.652-34.0578028*T-24.054*T*LN(T)
              -.01185105*T**2+1.23611E-06*T**3-15550*T**(-1); 1.20000E+03 Y
               +362141.292+89.7695408*T-41.846*T*LN(T)-7.219E-04*T**2-4.367E-08*T**3
              +1525260*T**(-1); 3.10000E+03 Y
               +335048.906+118.55457*T-44.078*T*LN(T)-.0025659*T**2
              +1.23796667E-07*T**3+20792295*T**(-1); 5.70000E+03 Y
               -56310.2884+1055.69873*T-153.197*T*LN(T)+.01100975*T**2
              -1.93861667E-07*T**3+2.8526535E+08*T**(-1); 6.00000E+03 N !
                              2.98150E+02 -9522.97393+78.5273873*T-31.35707*T*LN(T)
          FUNCTION GHSERH2
              +.0027589925*T**2-7.46390667E-07*T**3+56582.3*T**(-1); 1.00000E+03 Y
               +180.10884-15.6128262*T-17.84857*T*LN(T)-.00584168*T**2
              +3.14618667E-07*T**3-1280036*T**(-1); 2.10000E+03 Y
               -18840.1661+92.3120249*T-32.05082*T*LN(T)-.0010728235*T**2
              +1.14281783E-08*T**3+3561002.5*T**(-1); 6.00000E+03 N !
                              2.98150E+02 +414972.341-18.8056393*T-24.34*T*LN(T)
          FUNCTION F13480T
              +.0046806645*T**2-3.40084167E-06*T**3; 4.00000E+02 Y
               +415486.817-40.9586295*T-20.26685*T*LN(T)-.006038615*T**2
              +1.2890125E-06*T**3; 8.00000E+02 Y
               +411065.296+18.3133675*T-29.24746*T*LN(T)+.0021365025*T**2
              -1.14496517E-07*T**3+412765.95*T**(-1); 2.60000E+03 Y
               +411224.713+11.7609247*T-28.29857*T*LN(T)+.001646801*T**2
              -7.78248167E-08*T**3+785084*T**(-1); 5.00000E+03 Y
               +406354.126+39.4541897*T-31.80175*T*LN(T)+.0024133565*T**2
              -1.0515525E-07*T**3; 1.00000E+04 N !
          FUNCTION F13543T
                            2.98150E+02 +638073.28-68.1901937*T-24.897*T*LN(T)
              -.0313584*T**2+5.93355333E-06*T**3-14215*T**(-1); 8.00000E+02 Y
               +611401.773+268.08482*T-75.25401*T*LN(T)+.01088525*T**2
              -7.08741667E-07*T**3+2633835*T**(-1); 2.10000E+03 Y
               +637459.339+72.071267*T-48.587*T*LN(T)-9.09E-05*T**2
```

7.25000000e-01

7.75000000e-01

1.00000000e+00

-2.30868475e+04] 2.50000000e-02

-2.29016438e+04]

9.75000000e-01

2.25000000e-01

```
+9.12933333E-08*T**3-1191755*T**(-1); 4.50000E+03 Y
     +564540.781+329.59901*T-80.11301*T*LN(T)+.00578085*T**2
    -1.08841667E-07*T**3+29137900*T**(-1); 6.00000E+03 N !
 FUNCTION GLIOH
                    2.98150E+02 +8035+25*T+2*T*LN(T)+.5*GHSERH2#;
    6.00000E+03
                  Ν!
FUNCTION GHSERNI 2.98150E+02 -5179.159+117.854*T-22.096*T*LN(T)
    -.0048407*T**2; 1.72800E+03 Y
      -27840.655+279.135*T-43.1*T*LN(T)+1.12754E+31*T**(-9); 3.00000E+03
Ν
                    2.98150E+02 +16414.686-9.397*T-3.82318E-21*T**7
 FUNCTION GLIONI
    +GHSERNI#; 1.72800E+03 Y
     +18290.88-10.537*T-1.12754E+31*T**(-9)+GHSERNI#; 6.00000E+03 N !
 FUNCTION GBCCNI 2.98150E+02 +8715.084-3.556*T+GHSERNI#;
                                                             6.00000E+03
     N !
FUNCTION GB2NIVA 2.98150E+02 +162397.3-27.40575*T;
                                                        6.00000E+03
                                                                     N !
 FUNCTION LB2NIVA
                   2.98150E+02 -64024.38+26.49419*T;
                                                       6.00000E+03
                                                                     N !
 FUNCTION GNIHENDO 2.98150E+02 -6943.19902+232.335861*T-.04484*T**2
    +7.69228E-06*T**3+414576.079*T**(-1)-33.0704558*T*LN(T); 3.00000E+03
    Ν!
 FUNCTION GNIHENDT 2.98150E+02 +8750.9+1192.79246*T+.08885*T**2
    -1.75912E-05*T**3+2999916.61*T**(-1)-183.864222*T*LN(T); 3.00000E+03
    N !
 FUNCTION GNIHENDF 2.98150E+02 +95728.2+3987.57995*T+.397102914*T**2
    -6.06166E-05*T**3+12316009.5*T**(-1)-611.369511*T*LN(T); 3.00000E+03
    N !
 FUNCTION UN ASS
                    2.98150E+02 0.0; 3.00000E+02 N!
TYPE DEFINITION % SEQ *!
 DEFINE SYSTEM DEFAULT ELEMENT 2 !
 DEFAULT_COMMAND_DEF_SYS_ELEMENT_VA /- !
 TYPE_DEFINITION & GES A_P_D FCC_A1 MAGNETIC -3.0 2.80000E-01!
 PHASE FCC A1 %& 3 1 1 2 !
   CONSTITUENT FCC_A1 :NI : H, VA : H, VA : !
  PARAMETER G(FCC A1, NI:H:H;0) 2.98150E+02 +GNIHENDF#;
                                                          6.00000E+03
 REFO!
  PARAMETER G(FCC_A1, NI:VA:H;0) 2.98150E+02 +GNIHENDT#;
                                                           6.00000E+03
Ν
 REF0!
  PARAMETER G(FCC_A1, NI:H:VA;0) 2.98150E+02 +GNIHENDO#;
                                                           6.00000E+03
Ν
 REF0!
  PARAMETER G(FCC_A1, NI:VA:VA;0) 2.98150E+02 +GHSERNI#;
                                                           6.00000E+03
Ν
 REFO!
  PARAMETER TC(FCC A1, NI:VA:VA;0) 2.98150E+02 633; 1.72830E+03 N REF0
  PARAMETER TC(FCC_A1, NI: VA: H; 0) 2.98150E+02 1e-5; 6000 N REF0 !
```

PARAMETER TC(FCC_A1,NI:H:VA;0) 2.98150E+02 1e-5; 6000 N REF0 !
PARAMETER TC(FCC_A1,NI:H:H;0) 2.98150E+02 1e-5; 6000 N REF0 !
PARAMETER BMAGN(FCC_A1,NI:VA:VA;0) 2.98150E+02 .52; 1.72830E+03 Y
3; 6.00000E+03 N REF0 !

LIST_OF_REFERENCES NUMBER SOURCE !

T. [[7].	
In [57]:	
L - J	