Problem info

Problem type: Electrostatics
Geometry model class: Plane-Parallel
Problem database file names:

- Problem: *electrolytic capacitor.pbm*
- Geometry: *Electrolytic capacitor.mod*
- Material Data: *Electrolytic capacitor.des*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

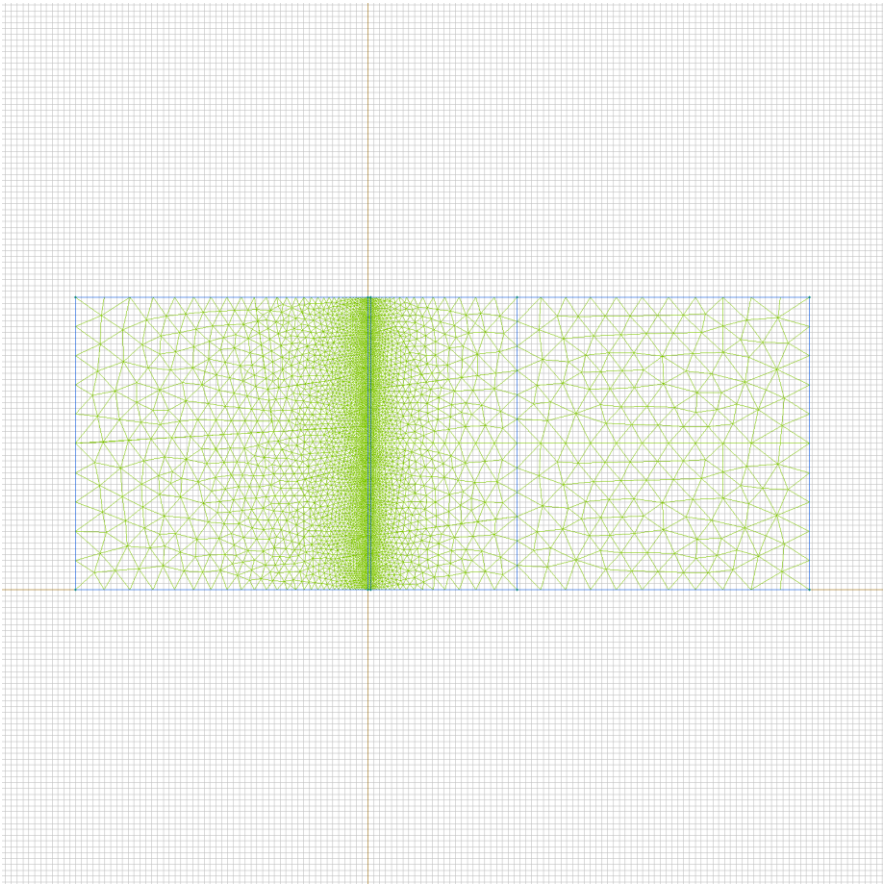


Table 1. Geometry model statistics

	With Label	Total
Blocks	4	4
Edges	2	13
Vertices	0	10

Number of nodes: 4593.

Labelled objects

There are following labelled objects in the geometry model (Material Data file could contain more labels, but only those labels that assigned to geometric objects are listed)

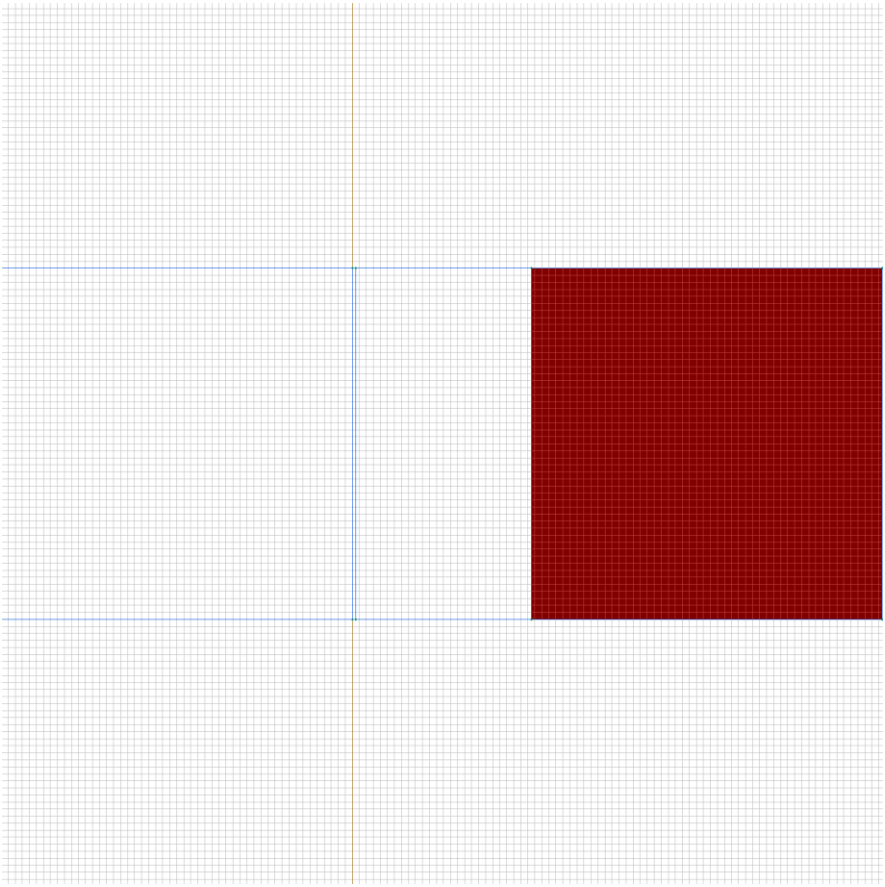
Blocks:	Edges:	Vertices:
• cathode foil • oxide film • anode foil • electrolyte •	• +U • -U •	

Detailed information about each label is listed below.

Labelled objects: block "cathode foil"

There are (1) objects with this label

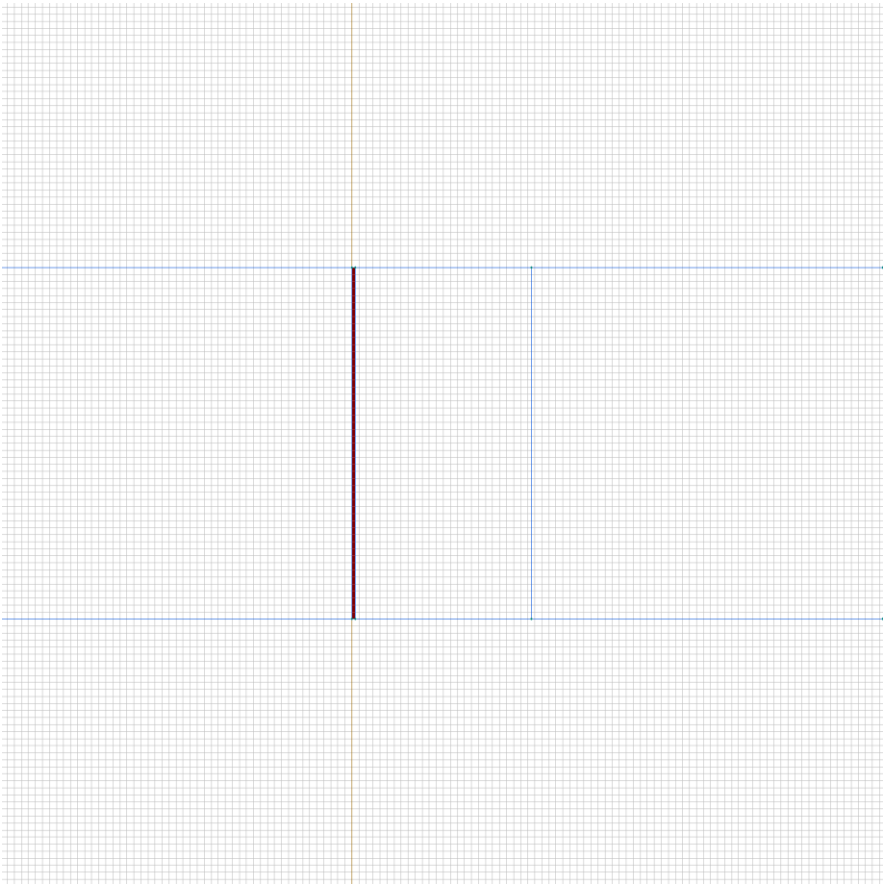
Relative electric permittivity eps_x=0, eps_y=0



Labelled objects: block "oxide film"

There are (1) objects with this label

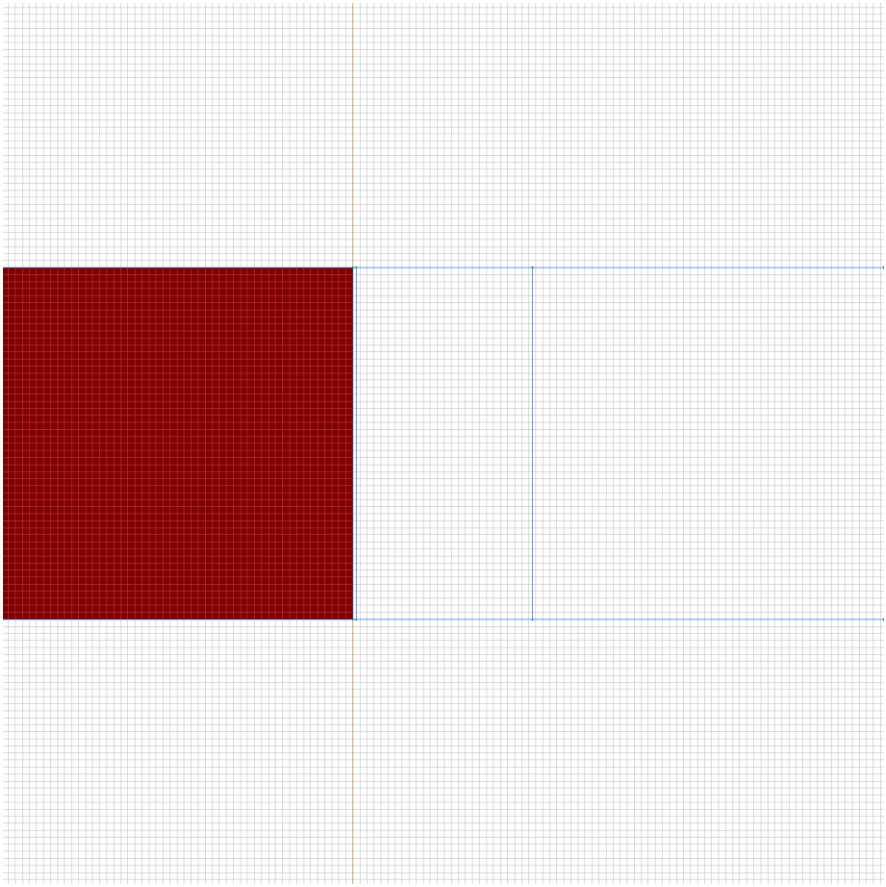
Relative electric permittivity eps_x=10, eps_y=10



Labelled objects: block "anode foil"

There are (1) objects with this label

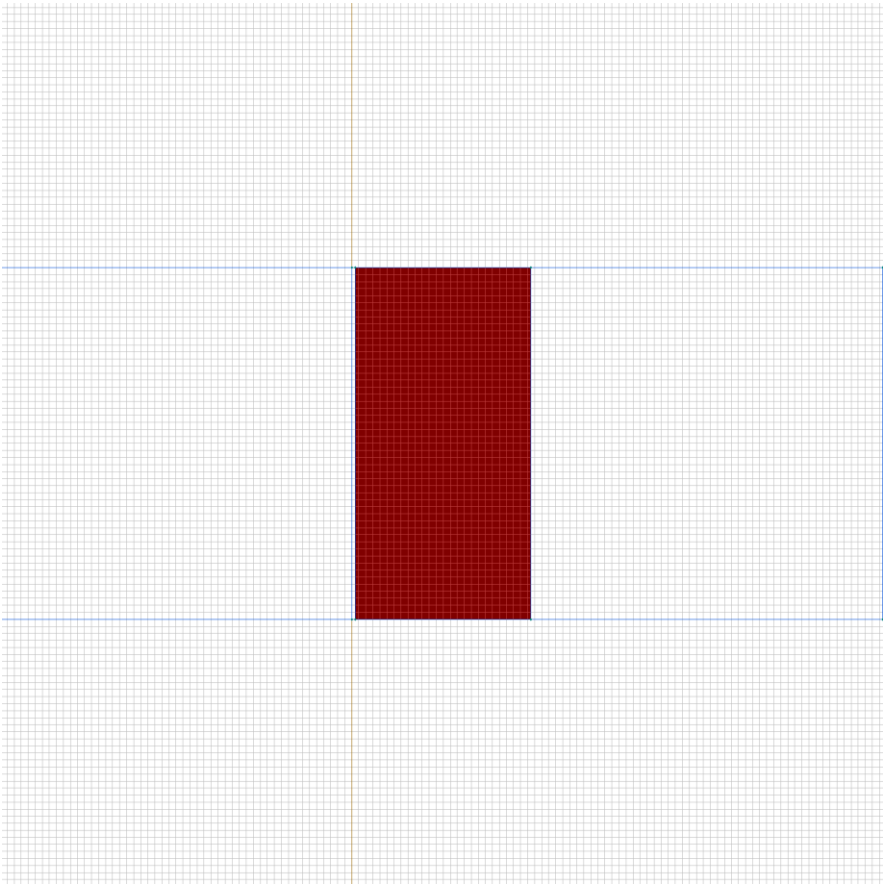
Relative electric permittivity eps_x=0, eps_y=0



Labelled objects: block "electrolyte"

There are (1) objects with this label

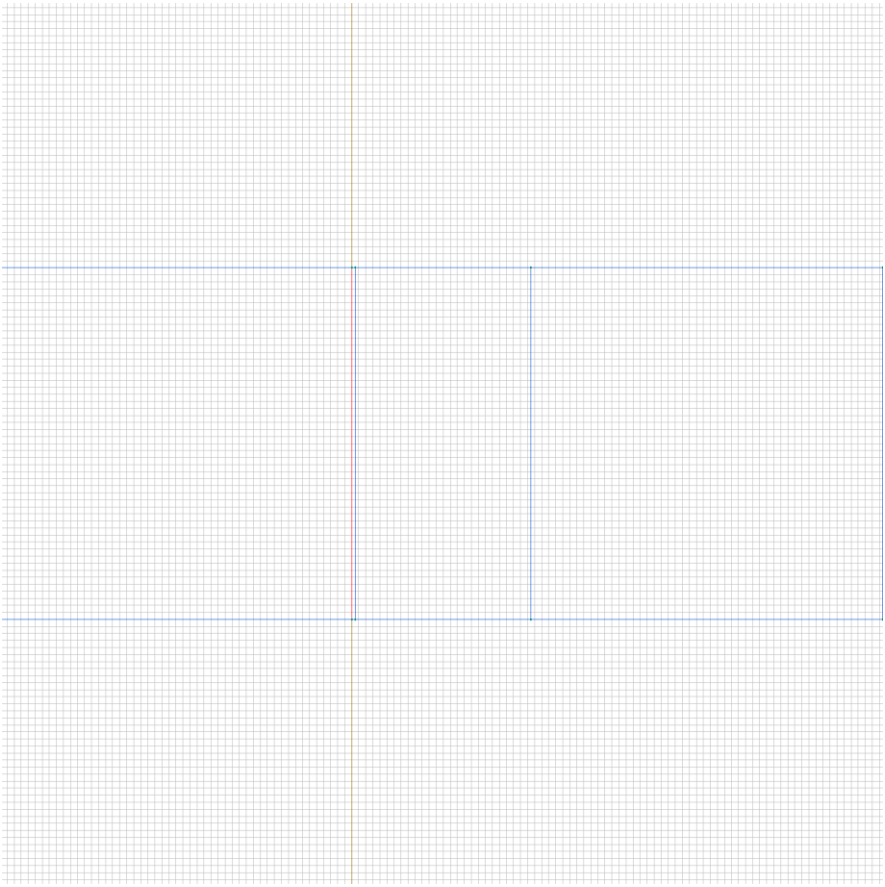
Relative electric permittivity eps_x=0, eps_y=0



Labelled objects: edge "+U"

There are (1) objects with this label

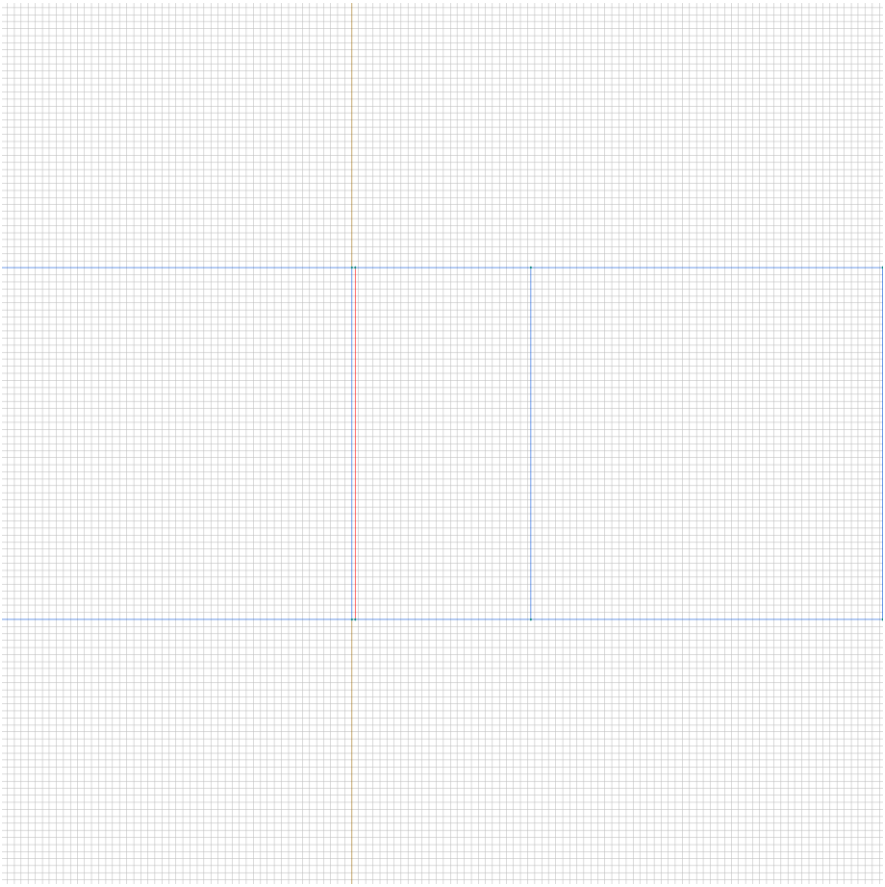
Voltage U=1 [V]



Labelled objects: edge "-U"

There are (1) objects with this label

Voltage U=0 [V]



Results

Field lines

Results

Color map of Electric induction |D| [C/m2]

Nonlinear dependencies

No non-linear dependencies are used in this problem data