**Sample DEP Parameters**

Dielectric parameters for red blood cells (RBC) and U937-monocyte cells.

Table obtained from [1].

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dielectric parameters (Symbol, unit)** | **RBC** |  |  | **U937-MC** |
| **Radius** (r, µm) | 2.8 [2] |  |  | 7 [3] |
| **Membrane thickness** (d, nm) | 4.5 [4] |  |  | 7 [3] |
| **Medium conductivity** (σm, S/m) | 0.01 |  |  | 0.01 |
| **Medium permittivity** (ℇm, F/m) | 80ℇ0 |  |  | 80ℇ0 |
| **Membrane conductivity** (σmem, S/m) | 10-6 [5] |  |  | 1x10-6 [6] |
| **Membrane permittivity** (ℇmem, F/m) | 4.44ℇ0 [5] |  |  | 12.5ℇ0 [3] |
| **Cytoplasm conductivity** (σint, S/m) | 0.31 [5] |  |  | 0.5 [3] |
| **Cytoplasm permittivity** (ℇint, F/m) | 59ℇ0 [5] |  |  | 50ℇ0 [3] |
| **Membrane folding factor** (Ф) | 1 [2] |  |  | 0.45 |

Use these parameters either in DEP\_Response\_1.m or in DEP\_Response\_2.m

Resulting crossover frequency you get should be

88.35 kHz for RBC and 44 kHz for U937.

References

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