```
1.  function [Vnew,nold] = getConcentrationElectrons(accur, Ec, meff, Ni, eps, dx, dU, boundL, boundR)
2.      e = 1.6e-19; eVtoJ = e; JtoEv = e^(-1);
3.
4.      lenEc = length(Ec);
5.
6.      Vnew = [zeros(1, boundL-1), linspace(0, dU, boundR - boundL + 1), dU*ones(1, lenEc - boundR)];
7.      Vold = Vnew + 10;
8.
9.      while ( max(abs(Vnew - Vold)) > accur )
10.         Vold = Vnew;
11.         Ui = Ec - Vold*eVtoJ;
12.
13.         nold = getNz(Ui, meff, dx, boundL, boundR);
14.
15.         Vnew = solvePoisonEq(dU, Vold, nold, eps, Ni, dx);
16.     end
17.
18.     Ui = Ec - Vnew*eVtoJ;
19.     nold = getNz(Ui, meff, dx, boundL, boundR);
20.  end
```