Analysis of dielectrophoresis AC electrokinetic in equilibrium using MATLAB

ABSTRACT

This paper presents an ideal case for dielectrophoretic (DEP) occurrence to separate a mixture of two sizes of particles in microchannel analysed with DEP 3D equation using Matlab. The analysis was done on the particles mobility changes when the medium conductivity varied. The analysis was also done when the particles suspended in different mediums conductivity. The effect of dielectrophoresis on the velocity of the particle when the frequency increased has been successfully discovered.

Keyword: Dielectrophoresis; AC electrokinetics; Equilibrium; MATLAB