

Assume the Position

A parallel plate capacitor with area A has the space between the plates filled with two slabs of dielectric, one with constant κ_1 , the other with constant κ_2 . Each slab has a thickness $d/2$, where d is the plate separation.

Derive an expression for the capacitance using A , d , κ_1 , κ_2 , and the usual constants.

