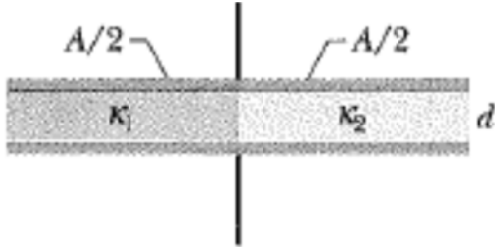


The figure below shows a parallel-plate capacitor with a plate area $A = 5.56 \text{ cm}^2$ and a separation $d = 5.56 \text{ mm}$. The left half of the gap is filled with material of dielectric constant $\kappa_1 = 7.00$. The right half is filled with material of dielectric constant $\kappa_2 = 12.0$. What is the capacitance of this configuration?



$$\begin{aligned}
 C &= \kappa_1 \frac{\epsilon_0 A/2}{d} + \kappa_2 \frac{\epsilon_0 A/2}{d} \\
 &= \frac{\epsilon_0 A}{2d} (\kappa_1 + \kappa_2) \\
 &= 8.41 \text{ pF}
 \end{aligned}$$

The diagram shows two capacitors, C_1 and C_2 , connected in parallel. The total capacitance is given by $C = C_1 + C_2$.

04 Sep	11 Sep	18 Sep	25 Sep	2 Oct	9 Oct	23 Oct	30 Oct	6 Nov	13 Nov	20 Nov	27 Nov	4 Dec	11 Dec	18 Dec
Solutions of the quizzes can be found on the webpage: http://faculty.kfupm.edu.sa/phys/aljalal/phys102.htm														
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