Capacitors with a nonlinear dielectric. Consider an arbitrary shaped capacitor with a nonlinear dielectric. The electric field intensity, electric flux density, and polarization vectors in the dielectric are $\mathbf{E}$, $\mathbf{D}$, and $\mathbf{P}$, respectively. At any point in the dielectric and for any field intensity, the following vectors are linearly proportional to $\mathbf{E}$:

(A) $\mathbf{D}$ only.
(B) $\mathbf{P}$ only.
(C) Both $\mathbf{D}$ and $\mathbf{P}$.
(D) $\mathbf{D} - \mathbf{P}$.
(E) None of the above.

Solution: (D)
Answer: (D)