

- 29** A wire made of material with resistivity ρ has length l and area of cross-section A . It is connected to an electrical supply and has a potential difference V across it.

What is the energy supplied to the wire in time t ?

A $\frac{V^2 t A}{\rho l}$

B $\frac{V t A}{\rho l}$

C $\frac{V \rho l t}{A^2}$

D $\frac{V^2 \rho l t}{A}$