

# Lattice strain gradient influences on steady-state rates of hydrogen permeation through membranes

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## Abstract

Permeation rate observations are reported which demonstrate the influence of lattice expansive strain gradients in producing nonlinear hydrogen concentration profiles through cross-sections of hydrogen diffusion membranes under "steady-state" conditions of hydrogen permeation.

## Indexed keywords

**Engineering controlled terms:** Crystal lattices; Diffusion; Electrolysis; Gas permeable membranes; Strain; Surfaces

**Engineering uncontrolled terms:** Lattice expansive strain gradients; Steady state hydrogen permeation rates

**Engineering main heading:** Hydrogen