

Pollution-Free Hydrogen from Nuclear Power

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Hydrogen is becoming the reference fuel for future transportation. However, hydrogen production needs to satisfy three criteria: no associated emissions, including CO₂; wide availability; and affordability. Water electrolysis is the only available technology to meet the first and second criteria. The third criterion includes costs of electrolysis and electricity. The primary requirements for affordable electrolysis are low capital cost and high utilization. Consequently, the electricity supply must enable high utilization as well as being itself low-cost and emissions-free. The only proven, large-scale source of electricity is evolved nuclear technologies, producing electricity at rates competitive with today's CO₂-emitting, fossil-fuelled technologies.

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