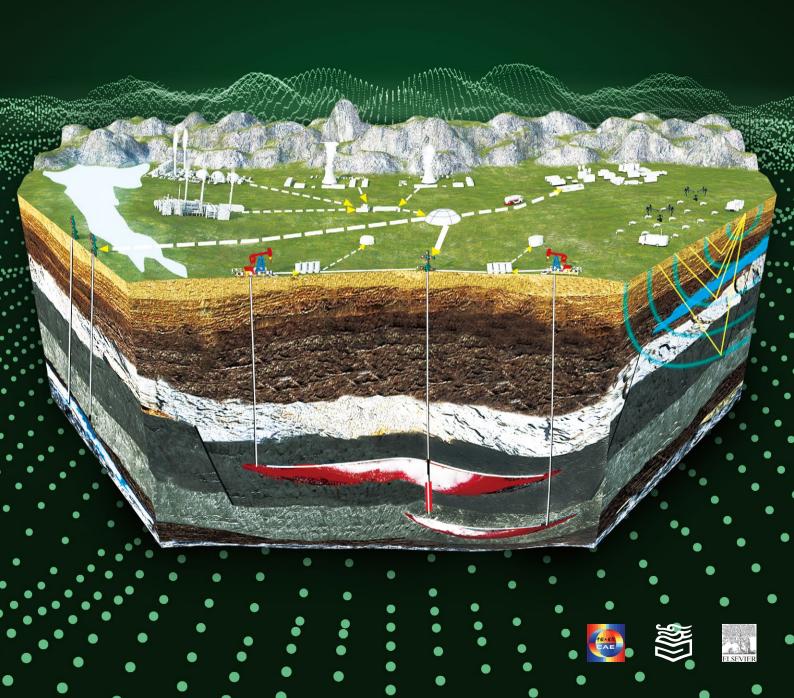
# Engineering July 2022

# Frontier Research on Carbon Neutrality

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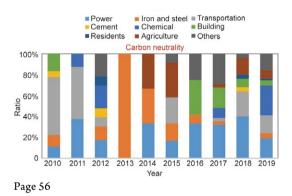
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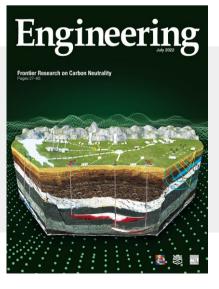
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### **ON THE COVER**

Carbon capture and storage (CCS) is the process of separating and compressing the carbon dioxide  $(CO_2)$  emitted by chemical, steel, and cement industries, coal- and gas-fired power plants, and other industries and facilities, transporting it to a geological storage site, injecting it into depleted oil reservoirs for enhanced oil recovery (EOR) and storage, or injecting it into deep saline aquifers for storage. Such geological storage processes require a measurement, monitoring, and verification (MMV) system, which involves atmospheric monitoring, shallow surface environmental monitoring, ground geophysics, and well monitoring of the injected  $CO_2$  to ensure storage safety and capacity.