Testing carbon capture technology virtually

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Existing models for evaluating adsorbents often fail to consider the size of equipment, operating variables and cost, leading to inconsistencies in performance following process scale-up.

Factors including the purity of the CO₂ captured, the quantity of CO₂ recovered and the energy required for the capture process have been considered. These factors were combined with other economic factors such as the compression cost to assess adsorbent suitability for carbon capture on an industrial scale.
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1. Give an environmental problem of increased CO₂ production.
2. Explain how CO₂ is produced from burning fuels.
3. Explain how carbon capture could help reduce the carbon footprint.