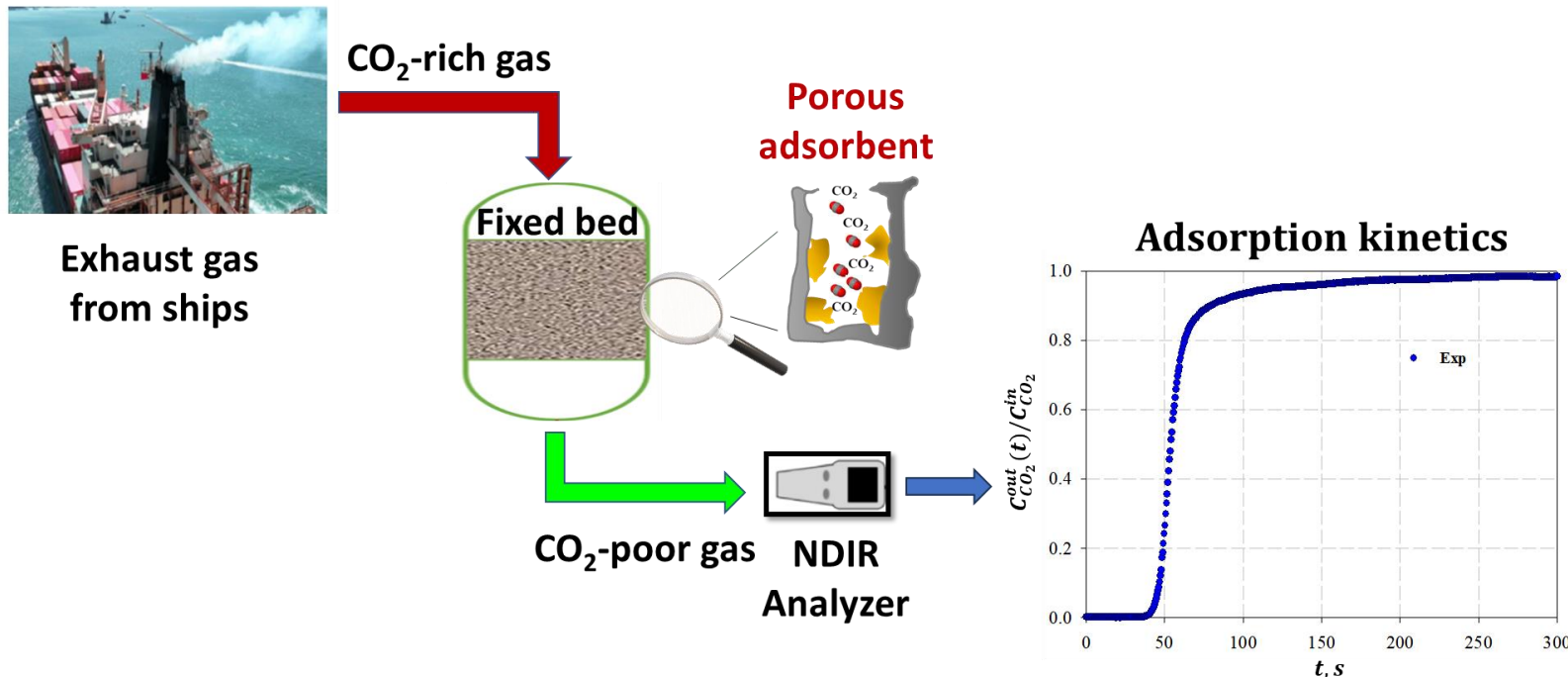




Project presentation

This PhD project aims at developing adsorbents with high CO₂ capture performances and regenerability with minimum energy consumption, to successfully implement this purification technology for CO₂ capture on-board ships. The studies will elucidate the relationships among adsorbent properties (e.g., alumina, porous polymers, activated carbons, also functionalized with alkali metal carbonates or amines), adsorption/regeneration conditions, and CO₂ capture mechanism.



Ph.D. Student

Fatima Hassan

Title

Development of a CO₂ capture process on-board ships



Exhaust gas
from ships

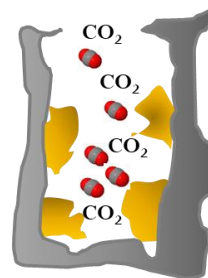
CO₂-rich gas



Fixed bed



Porous
adsorbent



CO₂-poor gas



NDIR
Analyzer



Adsorption kinetics

