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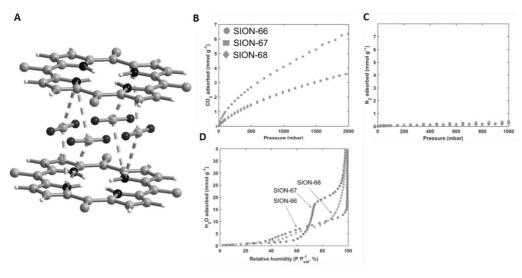
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Licensing Opportunity

TTO - Technology Transfer Office

# MOFs for wet flue gas CO2 capture



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### Keywords

CO2 selective adsorption Carbon capture and storage Metal-organic frameworks

### Intellectual Property

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#### Publications

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A. Carbon dioxide is coordinated between the two aromatic planes of the metal organic framework, but not bound to the metallic component of the metal organic framework. B. & C. Representative compounds (SION-66, -67, -68) adsorb CO2 but hardly any N2. D. Water vapor isotherms collected on these materials are type V and show low water uptake up to 60 % relative humidity (RH) indicating that until said humidity the water adsorption does not compete with carbon dioxide adsorption.

# Description

Different technologies have been described Opportunity for licensing and/or to capture carbon from a gas but none that collaborating. function in the presence of water. This important limitation represents an applications to post-combustion gases.

The invention solves this problem with a new class of metal organic Frameworks (MOF) that can uniquely adsorb and capture CO2 in the presence of water. Further, moderate heating (80 to 100 °C) can release the CO2 from the MOF.

# Advantages

Excellent  $CO_2$ selectivity and capture under capacity both dry and humid conditions.

### Applications

Post-combustion Carbon capture (wet or dry flue gas, carbon storage.

# Offering