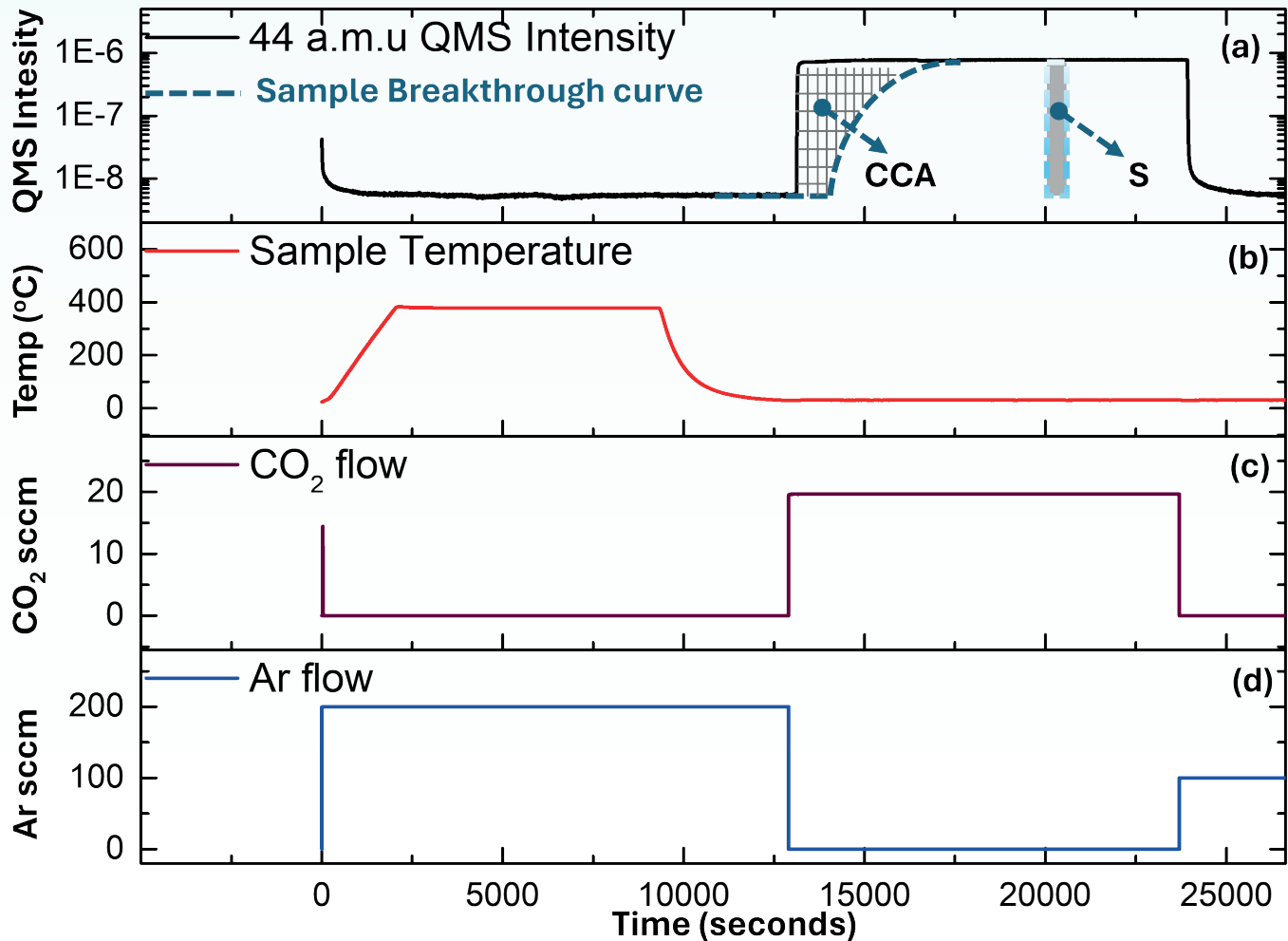




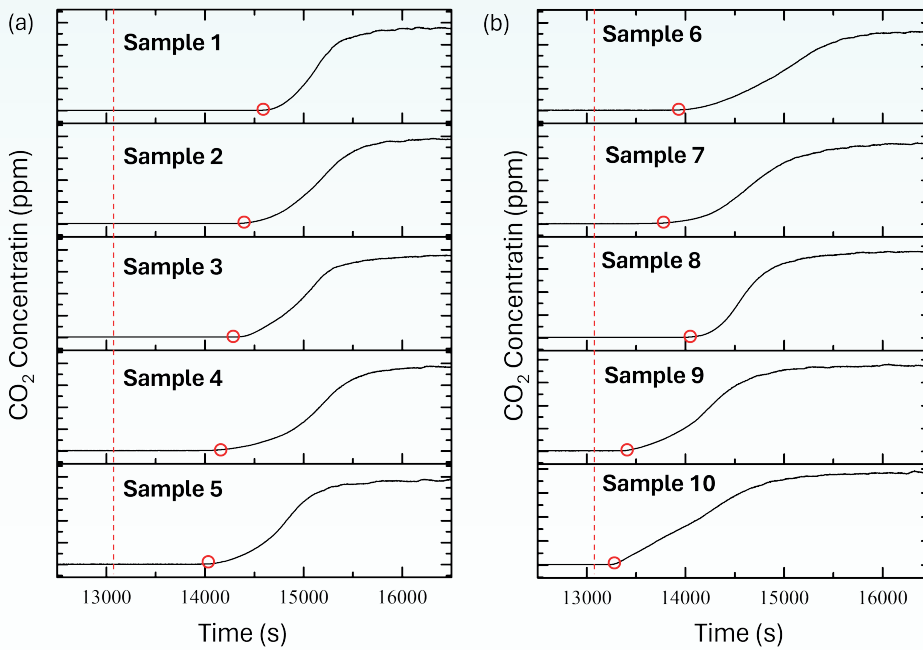
## Real-time Experimental Parameters during typical CO<sub>2</sub> capture Analysis



Experimental outputs of each parameter during typical CO<sub>2</sub> capture analysis. (a) CO<sub>2</sub> breakthrough curve based on NDIR CO<sub>2</sub> Sensor, (b) temperature reading from K-type thermocouple standing just 5 mm above the sorbent material, (c) and (d) CO<sub>2</sub> and Ar gas flow in sccm during the analysis. CCS refers to the CO<sub>2</sub> Capture Area

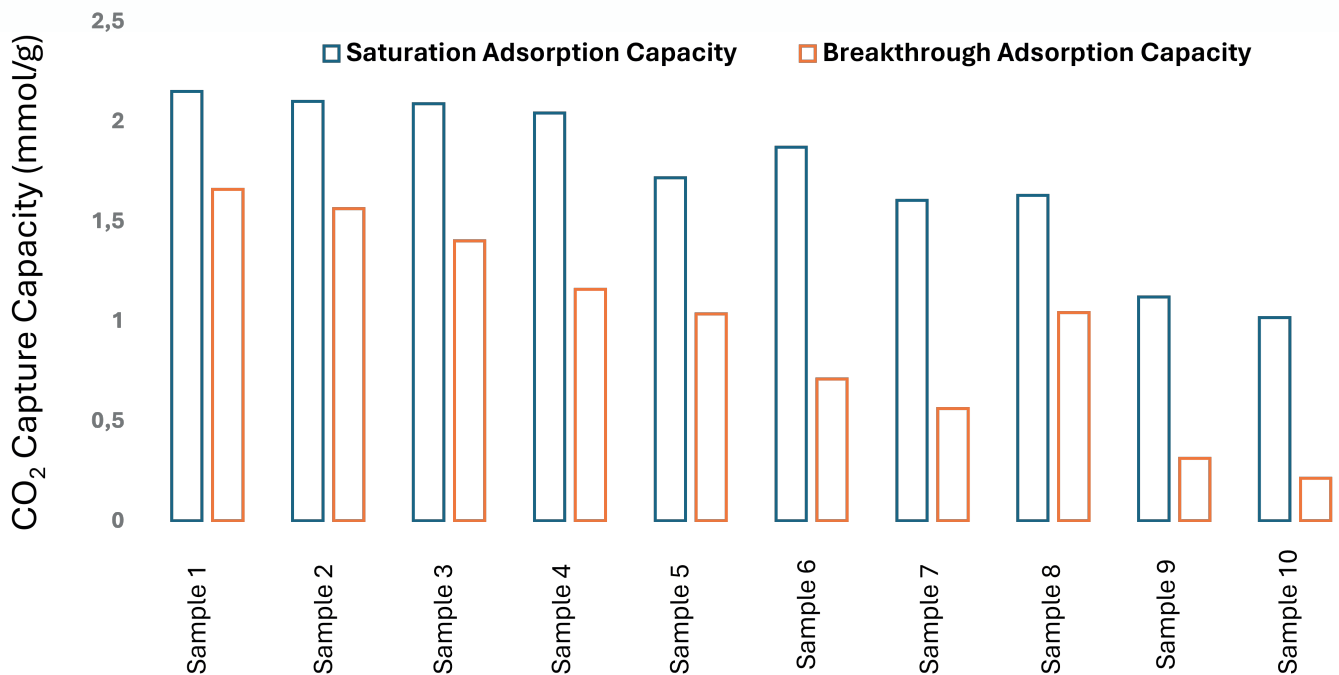


## Application Note 1: Dynamic CO<sub>2</sub> Breakthrough Analysis



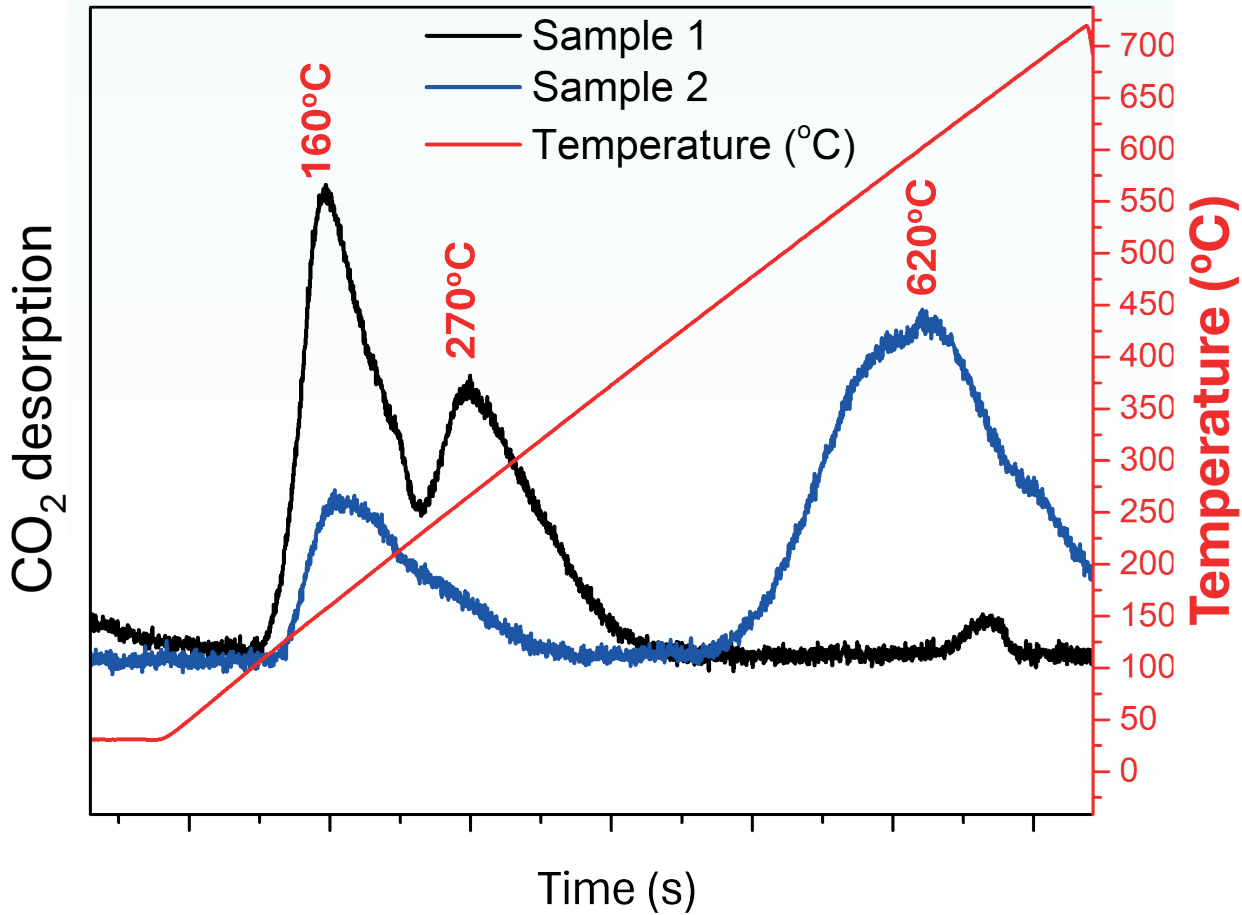
Dynamic CO<sub>2</sub> adsorption breakthrough curves of CO<sub>2</sub> signal recorded by NDIR CO<sub>2</sub> Sensor under continuous 20 sccm 0.2% CO<sub>2</sub> gas flow of ten different test samples. Red dashed-line vertical to the x axis corresponds to gas switch onset point from Ar to 0.2% CO<sub>2</sub>. Red circles pinned on CO<sub>2</sub> curve represents the point where CO<sub>2</sub> signal rise up.

## Calculated CO<sub>2</sub> capture capacities (mmol/g) of corresponding sorbent materials





## Application Note 2: Temperature Dependent CO<sub>2</sub> Desorption Analysis



CO<sub>2</sub> desorption analysis during heating the solid samples in Argon flow up to 720°C with 10°C/min heating rate. This analysis can be also performed in O<sub>2</sub>-rich gas atmosphere for combustion tests.

## Contact us for the customized solutions.

Specson Online Analiz ve Proje Deney Tasarımı Ltd Şti  
Mustafa Kemal Mahallesi, Cozone Yerleşkesi No:280, ODTÜ Teknokent

+90 507 922 11 02

infospecson@gmail.com