

The quantity of Brönsted acid sites and Lewis acid sites was added in supplementary documents as shown in Table S1.

Based on our experiment, the quantity of Brönsted acid sites and Lewis acid sites can be calculated using the following equations (1-2) [1]

$$C_{(\text{Brönsted})} = \text{IMEC}_{(\text{Brönsted})}^{-1} \times \text{IA}_{(\text{Brönsted})} \times \frac{\pi R^2}{w} \quad (1)$$

$$C_{(\text{Lewis})} = \text{IMEC}_{(\text{Lewis})}^{-1} \times \text{IA}_{(\text{Lewis})} \times \frac{\pi R^2}{w} \quad (2)$$

where C is the concentration ($\mu\text{mol/g}$ catalyst), IMEC(B, L) the integrated molar extinction coefficients ($\text{cm}/\mu\text{mol}$), IA(B, L) the integrated absorbances (cm^{-1}), R the radius of catalyst disk (cm) and W is the weight of disk (mg). For pyridine-FTIR studies, the extinction coefficients for Brönsted acid sites and Lewis acid sites are 1.67 and 2.22 $\text{cm} \cdot \mu\text{mol}^{-1}$, respectively according to [2-3]. The number of acid sites of SBA-15-FA catalyst after pyridine adsorption is shown in Table S1. From this result, the number of Lewis acid sites was higher than that of Brönsted acid sites.

Table S1 Number of acid sites of SBA-15-FA catalyst after pyridine adsorption

Catalyst	Number of acid sites ($\mu\text{mol/g}$)	
	Brönsted acid sites	Lewis acid sites
SBA-15-FA	0.006	0.042

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2. Zholobenko, V.; Freitas, C.; Jendrlin, M.; Bazin, P.; Travert, A.; Thibault-Starzyk, F. Probing the acid sites of zeolites with pyridine: Quantitative AGIR measurements of the molar absorption coefficients. *J Catal* **2020**, 385, 52-60.
3. Gallo, J.M.R.; Bisio, C.; Gatti, G.; Marchese, L.; Pastore, H.O. Physicochemical Characterization and Surface Acid Properties of Mesoporous [Al]-SBA-15 Obtained by Direct Synthesis. *Langmuir* **2010**, 26, 5791-5800.