

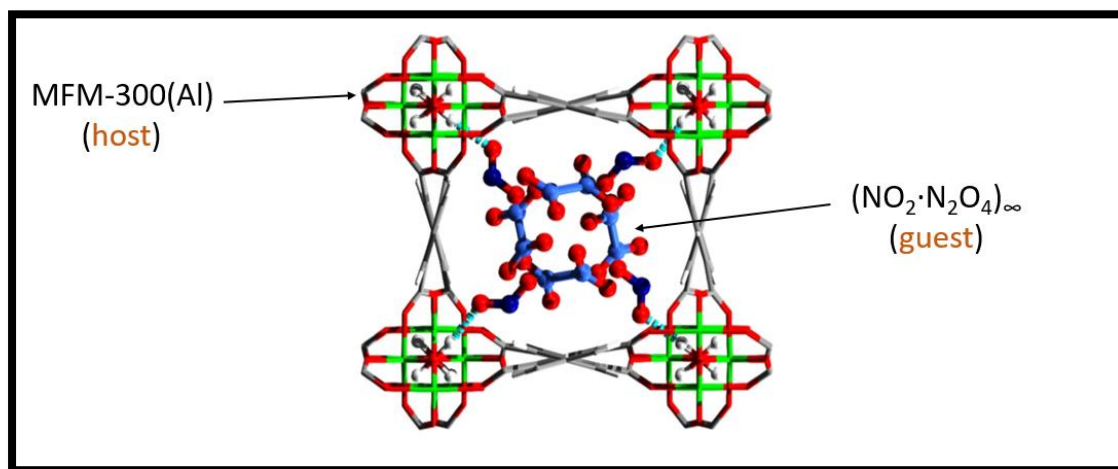
# Reversible adsorption of nitrogen dioxide within a robust porous metal–organic framework

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## Abstract:

Nitrogen dioxide ( $\text{NO}_2$ ) is an intermediate while synthesizing of nitric acid in industry and is heavily released to air every year in the world. Scientists have searched for ways to solve the pollution problems of  $\text{NO}_2$ , including using modified Y zeolites, mixed oxides  $\text{Ce}_{1-x}\text{Zr}_x\text{O}_2$  and activated carbons as adsorption materials. Due to the high reactivity of  $\text{NO}_2$ , these materials express irreversible uptake and low adsorption capacity.

In this article, the authors then reported an unprecedented method using a metal-organic framework, MFM-300(Al), to achieve a reversible adsorption of  $\text{NO}_2$ . How does this new material work with  $\text{NO}_2$  involve the concept of host-guest interaction. Why it is a feasible solution will be discussed in this presentation.



## Main reference

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