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Editorial

[Water at interfaces](#)

Phys. Chem. Chem. Phys., 2008, **10**, 4676

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Characterization of interfacial water in MOF-5 ($\text{Zn}_4(\text{O})(\text{BDC})_3$)— a combined spectroscopic and theoretical study

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In this article we report the detection and characterization of adsorbed interfacial water within the cages of the metal–organic framework MOF-5 ($\text{Zn}_4\text{O}(\text{BDC})_3$) by terahertz time-domain spectroscopy (THz TDS) in the frequency range from 5 to 46 cm^{-1} . The experimental spectra suggest a coupling of the intermolecular motions of the water molecules adsorbed to the collective vibrations of the network at 4 wt% hydration. This finding is supported by the results of MD simulations. When increasing the water content to 8 wt% we observed a non reversible decomposition of MOF-5.