

# Institute of Chemical Engineering

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## Adsorption isotherms of water vapour over zeolite adsorbents used in the separation of CO<sub>2</sub> from flue gases

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<b>Publication title:</b>	<a href="#">Adsorption isotherms of water vapour over zeolite adsorbents used in the separation of CO<sub>2</sub> from flue gases</a>
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**Abstract:** Experimental results are presented of the adsorption equilibria of water vapour over zeolite molecular sieves 13X (Molsiv and Grace) which may be used in the separation of CO<sub>2</sub> from flue gas streams. It is found that water vapour is the strongest adsorbing species among the main components of the flue gas. It is also concluded that the H<sub>2</sub>O isotherms are strongly non-linear, so that even very small amounts of water vapour in a separated flue gas stream may significantly reduce CO<sub>2</sub> sorption capacity of the two adsorbents studied.

## Attachments:

[Zeszyt-17-2013](#) pdf, 6.23 MB

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