Supporting Information

Indicating spreading pressure diagrams

**Fig. 1** Integrant for spreading pressure of pure component adsorption (filled symbols from gravimetry, open symbols from volumetry, lines are Töth model) for IFP-1.

**Fig. 2** Integrant for spreading pressure of pure component adsorption (filled symbols from gravimetry, open symbols from volumetry, lines are Töth model) for IFP-2.
**Fig 3** Integrant for spreading pressure of pure component adsorption (filled symbols from gravimetry, open symbols from volumetry, lines are Tòth model) for **IFP-3**.

**Fig 4** Integrant for spreading pressure of pure component adsorption (filled symbols from gravimetry, open symbols from volumetry, lines are Tòth model) for **IFP-4**.
**Fig 5** Integrant for spreading pressure of pure component adsorption (filled symbols from gravimetry, open symbols from volumetry, lines are Tòth model) for **IFP-5**.

**Fig 6** Integrant for spreading pressure of pure component adsorption (filled symbols from gravimetry, open symbols from volumetry, lines are Tòth model) for **IFP-6**.