Supporting information

MF-NF treatment train for pig manure: Nutrient recovery and reuse of product water

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1. Membrane filtration system

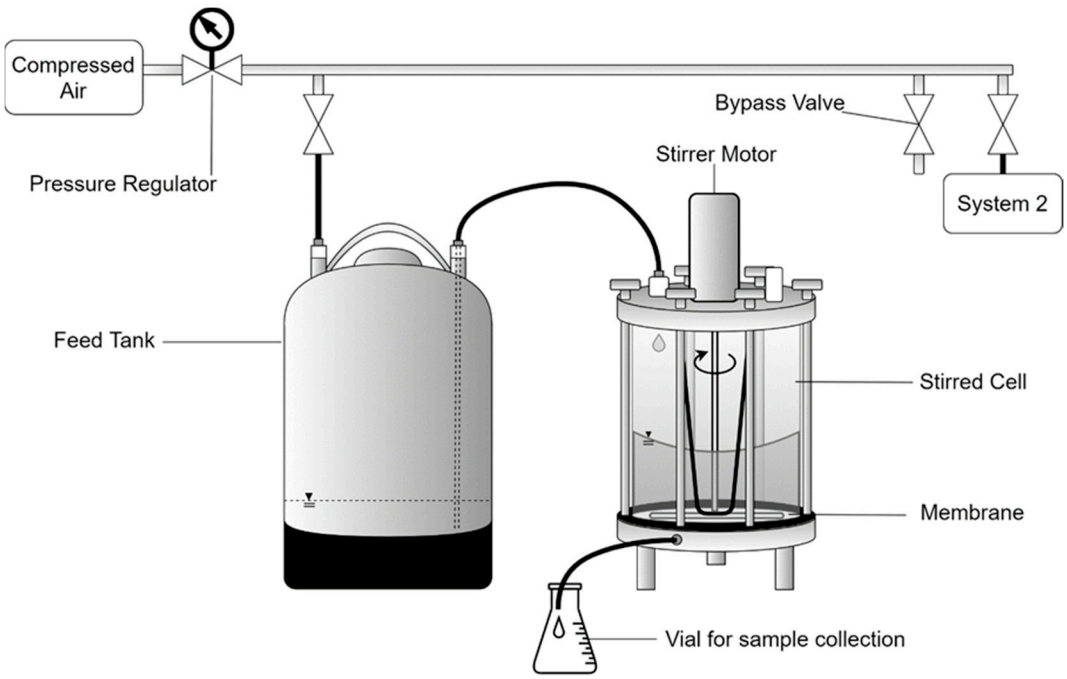

Figure S1. Stirred cell dead end membrane filtration system

2. Ion retention

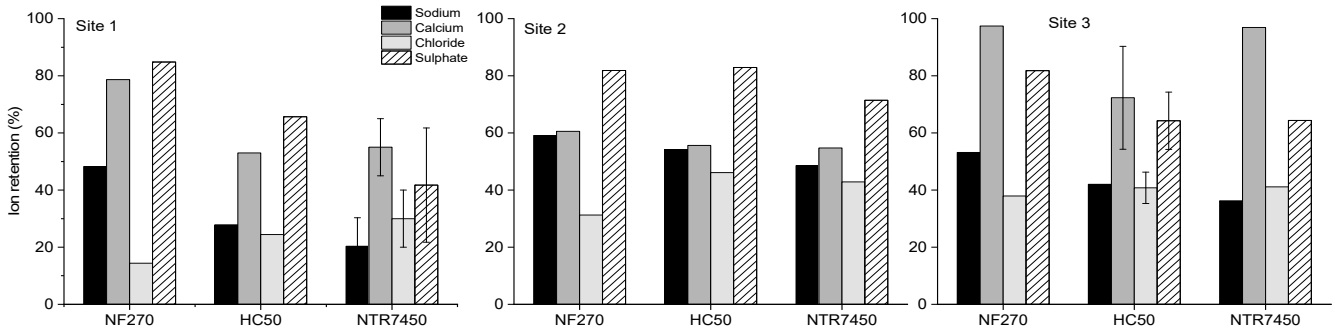

Figure S2. Ion retention of MF permeate at 50% recovery by NF270, HC50 and NTR7450 membranes from all sampling sites. Pressure: 6.5 bar, stirring rate: 400 rpm, temperature: 25°C.

3. COD and DOC retention by NF

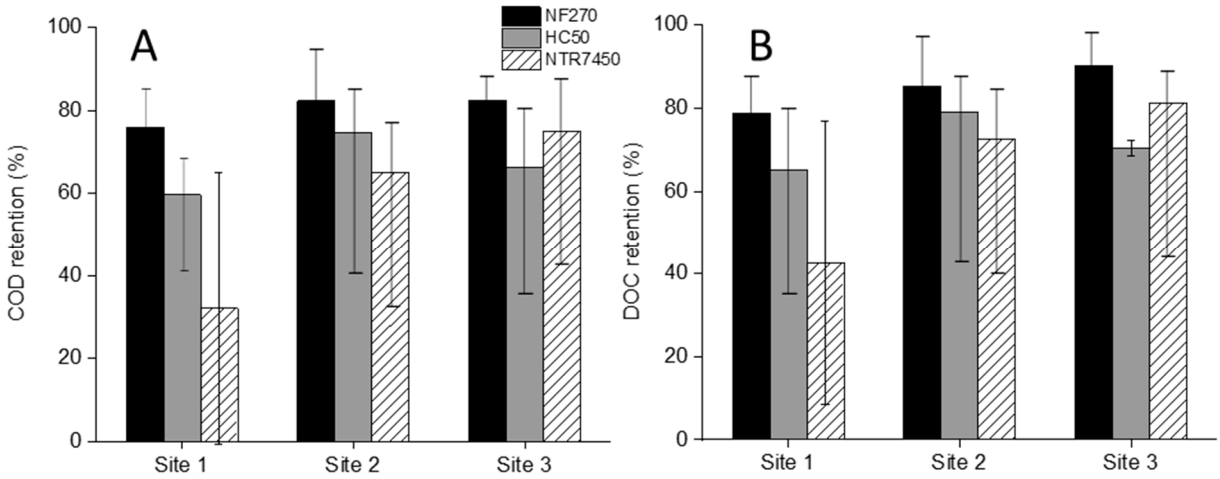

Figure S3. (A) COD and (B) DOC retention of MF permeate at 50% recovery by NF270, HC50 and NTR7450 membranes from all sampling sites. Pressure: 6.5 bar, stirring rate: 400 rpm, temperature: 25°C.

4. Normalized flux during filtration

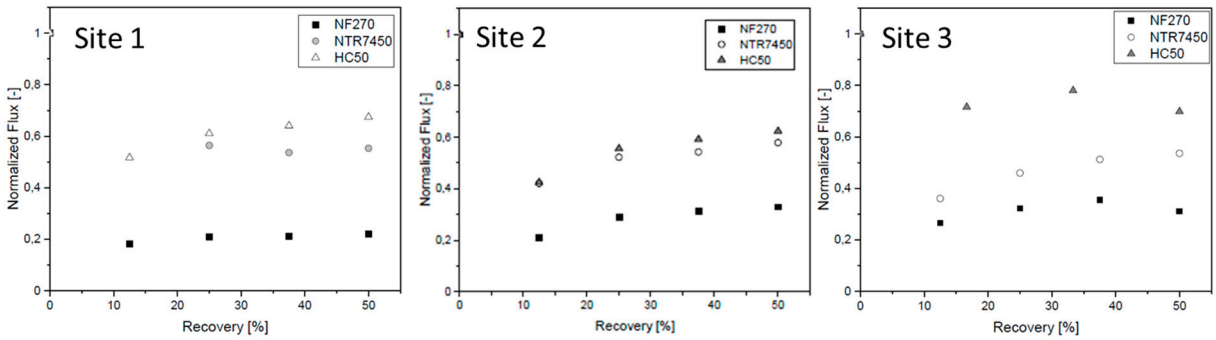

Figure S4. Flux during filtrations of NF270, HC50 and NTR7450 membranes while filtering pig manure from all sampling sites. Pressure: 6.5 bar, stirring rate: 400 rpm, temperature: 25°C.

Normalized flux was calculated by following equation S1, where Jw is pure water flux before MF permeate filtration and Jp is the flux during MF permeate filtration.

$$Normalized\ flux = (Jp/Jw) \qquad \text{(S1)}$$