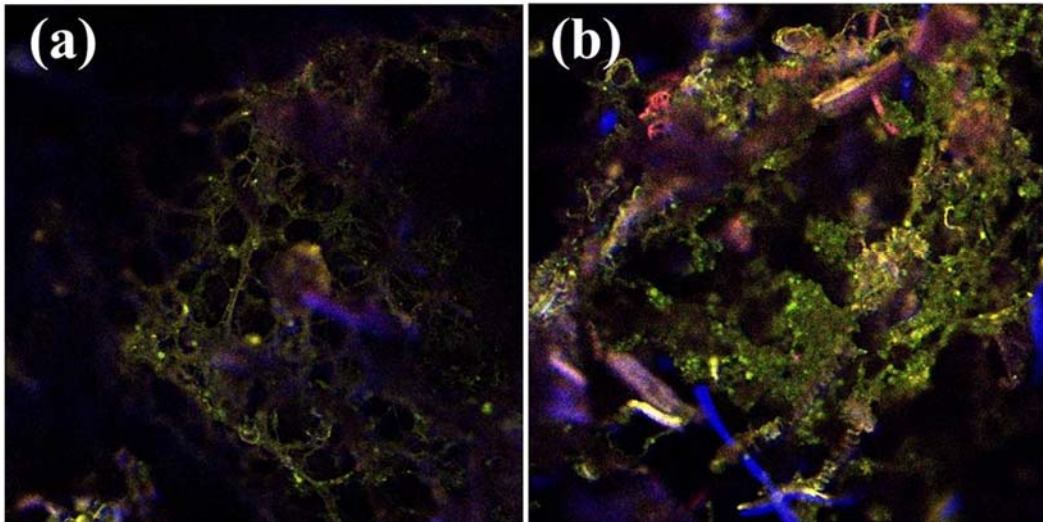


## Supporting materials



**Fig. A1** CLSM images of the sludge cake on the surface of membrane (a) R1, (b) R2 (yellow, bacteria; green, protein; blue,  $\alpha$ -polysaccharides; purple,  $\beta$ -polysaccharides; red, lipid)

**Table B1** Statistical results of PSD of bulk sludge in R1 and R2

Reactor	Particle size ( $\mu\text{m}$ )				
	Mean	Peak	D10	D50	D90
R1	53.997	37.243	12.029	36.715	84.539
R2	67.929	49.095	17.188	47.074	109.933