

Supporting Information

Confinement Induced Change of Microemulsion Phase Structure in Controlled Pore Glass (CPG) Monoliths

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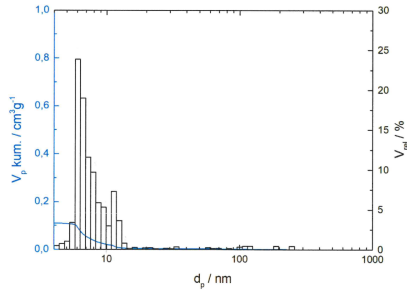
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Mercury Intrusion Measurements

a

| | | |
|-----------------------|-------|---------------------------------|
| Modal Diameter | 7,8 | nm |
| Median Diameter (50%) | 7,0 | nm |
| Porosity | 20,1 | % |
| Pore Volume | 0,110 | cm ³ g ⁻¹ |



Leipzig, 08.11.2022:

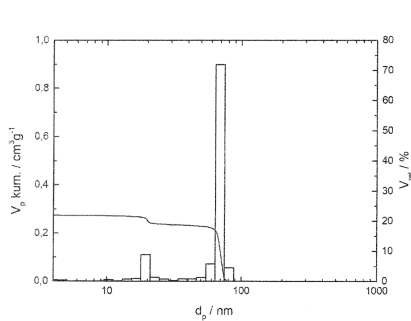
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Bastian Oberleiter



Mercury Intrusion Measurements

c

| | | |
|-----------------------|-------|---------------------------------|
| Modal Diameter | 69,7 | nm |
| Median Diameter (50%) | 69,1 | nm |
| Porosity | 37,7 | % |
| Pore Volume | 0,275 | cm ³ g ⁻¹ |



Leipzig, 02.05.2023:

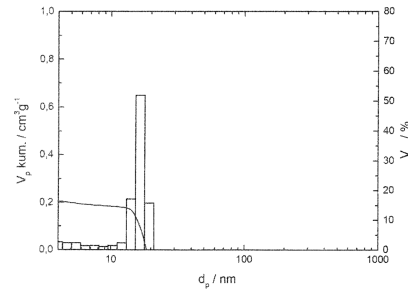
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Mercury Intrusion Measurements

b

| | | |
|-----------------------|-------|---------------------------------|
| Modal Diameter | 16,2 | nm |
| Median Diameter (50%) | 16,4 | nm |
| Porosity | 31,4 | % |
| Pore Volume | 0,208 | cm ³ g ⁻¹ |



Leipzig, 02.05.2023:

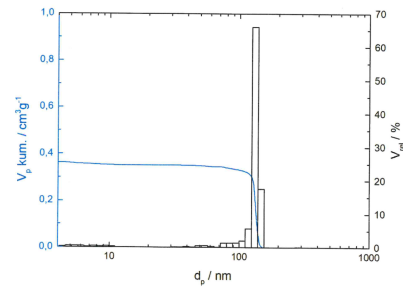
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Mercury Intrusion Measurements

d

| | | |
|-----------------------|-------|---------------------------------|
| Modal Diameter | 132,8 | nm |
| Median Diameter (50%) | 133,0 | nm |
| Porosity | 44,4 | % |
| Pore Volume | 0,363 | cm ³ g ⁻¹ |



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Fig. S 1 Hg-intrusion certificates of the porous membranes CPG10, CPG20, CPG50 and CPG100 (a – d) from the supplier.

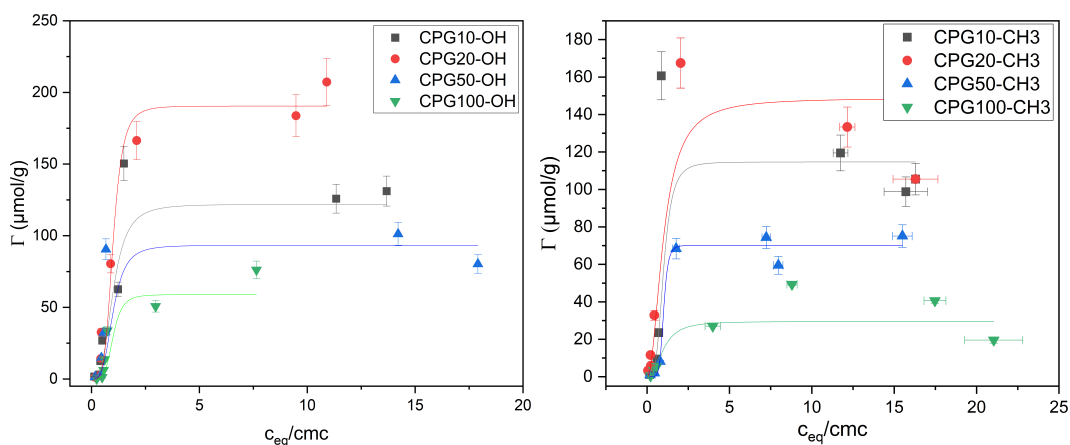


Fig. S 2 Adsorption Isotherms of the $C_{10}E_4$ surfactant onto the hydrophilic CPG (left) and hydrophobic CPG (right) with the fit of the Gu-Zhu model.

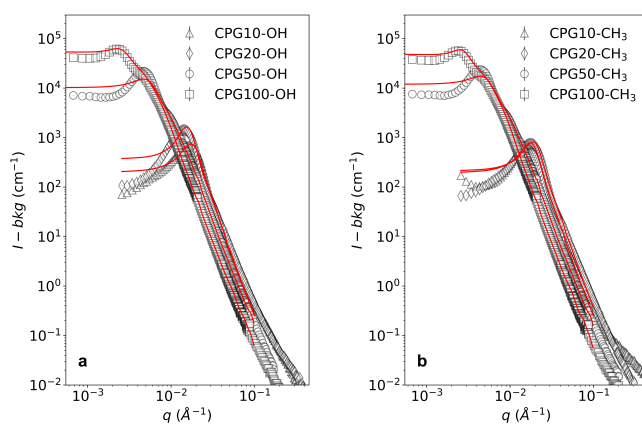


Fig. S 3 a) SANS signal of the air-filled hydrophilic CPG-OH and b) hydrophobic CPG-CH₃ after subtraction of the incoherent background with the TS fit taking multiple scattering into account (red line).

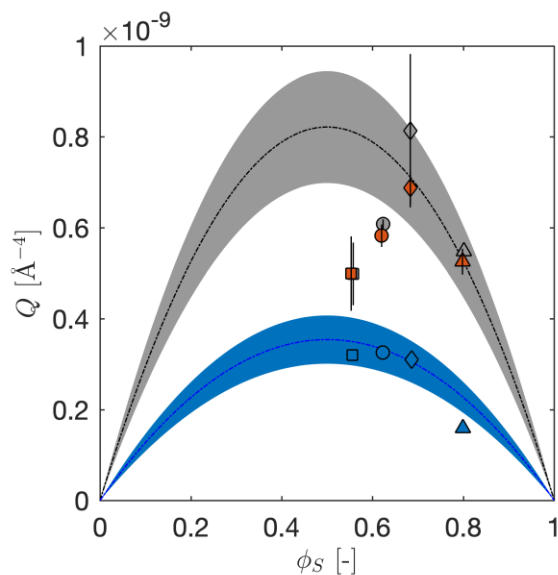


Fig. S 4 Integrated total scattering intensity Q_{exp} versus solid volume fraction Φ_S . The blue symbols represent the D_2O -filled hydrophilic samples. The air-filled CPG-CH₃ is shown as red symbols and the air-filled CPG-OH is shown as gray symbols. The error bars are from experiments on different instruments.