**Supporting Information**

**Quinizarin-based Photoactive Porous Polymers from Emulsion Templates: Monoliths versus Membranes in Photobactericidal Applications.**

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**Table S1.** HIPE recipes for the synthesis of polyHIPEs.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| W/O HIPE | PH1 | PH2 | PH3 | PH4 | PH5 | PH6 | PH7 | PH8 | PH9 |
| Oil Phase |  |  |  |  |  |  |  |  |  |
| QMA(g) | / | / | 0.004 | 0.004 | 0.008 | / | 0.004 | 0.004 | 0.003 |
| AESO(g) | 0.218 | 0.218 | 0.218 | 0.218 | 0.218 | 0.218 | 0.218 | 0.218 | 0.131 |
| Cyclohexane (g) | 0.218 | 0.218 | 0.218 | 0.218 | 0.218 | 0.218 | 0.218 | 0.218 | 0.305 |
| Span 80 (g) | 0.044 | / | 0.044 | / | 0.044 | 0.044 | 0.044 | 0.044 | 0.026 |
| PGPR 4125 (g) | / | 0.044 | / | 0.044 | / | / | / | / | / |
| AIBN (g) | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | / | / | / | / |
| I819(g) | / | / | / | / | / | 0.004 | 0.004 | 0.004 | 0.003 |
| Water phase |  |  |  |  |  |  |  |  |  |
| CaCl2 aq 3wt% (g) | 2.606 | 2.606 | 2.627 | 2.627 | 2.649 | 2.606 | 2.627 | 2.627 | 2.656 |



**Figure S1.** Synthesis (**A**), 1H NMR in CDCl3 (**B**) and 13C NMR in CDCl3 (**C**) of the monomethacrylated quinizarin (QMA).



**Figure S2.** N2 isothermal adsorption curves and specific surface area (SBET) for A) **PH1** and B) **PH3**.



**Figure S3**. Stress vs strain curve from compression test with DMA (at 100µm/min compression speed at 25°C) for QMA-free polyHIPEs **PH1** and **PH2** and QMA-functional polyHIPEs **PH3-5** from 0 % to 20 % of deformation.



**Figure S4.** Pictures and SEM images of the quinizarin-functionalized AESO-based porous membranes PH8 obtained by photocuring using Irgacure 819 as photoinitiator.



**Figure S5.** Evolution of the UV-visible spectra of the TPCPD solution upon irradiation in the presence of polyHIPE monoliths **PH1** (A) and **PH3** (B) as well as polyHIPE membrane **PH9** (C).

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**Figure S6.** Decrease of the TPCPD absorbance as a function of the irradiation time in the presence of the **PH9** membraneafter three cycles of light activation.



**Figure S7.** IR spectra of the quinizarin-functionalized porous monolith PH3 before (black line) and after (red line) the photobactericidal tests. Samples were taken at the edge of the polyHIPE were light irradiation was maximal.



**Figure S8.** SEM analysis of the edge (A) and the center (B) of the quinizarin-functionalized porous monolith PH3 after antibacterial test under irradiation.