

# Electronic Supplementary Information

## Ionic liquid - based route for the preparation of catalytically active cellulose – TiO<sub>2</sub> porous films and spheres

*Alexandra Wittmar<sup>a,b,\*</sup> and Mathias Ulbricht<sup>a,b\*</sup>*

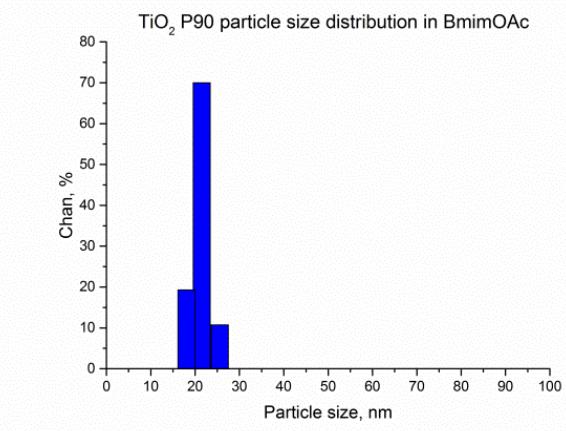
<sup>a</sup>Lehrstuhl für Technische Chemie II, Universität Duisburg-Essen, 45141 Essen, Germany

<sup>b</sup>CENIDE – Center for Nanointegration Duisburg-Essen, NETZ – NanoEnergieTechnikZentrum,

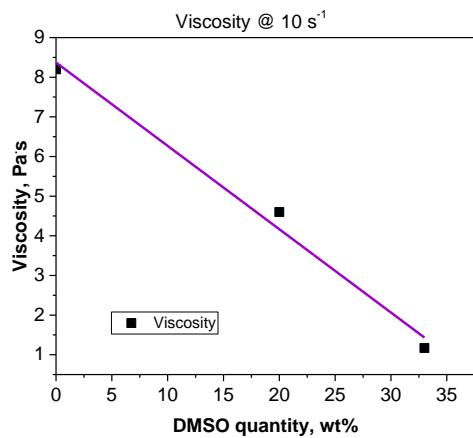
47057 Duisburg, Germany

\*Corresponding authors: Fax: +49 – 201 – 183 3147, e-mail: [alexandra.wittmar@uni-due.de](mailto:alexandra.wittmar@uni-due.de);

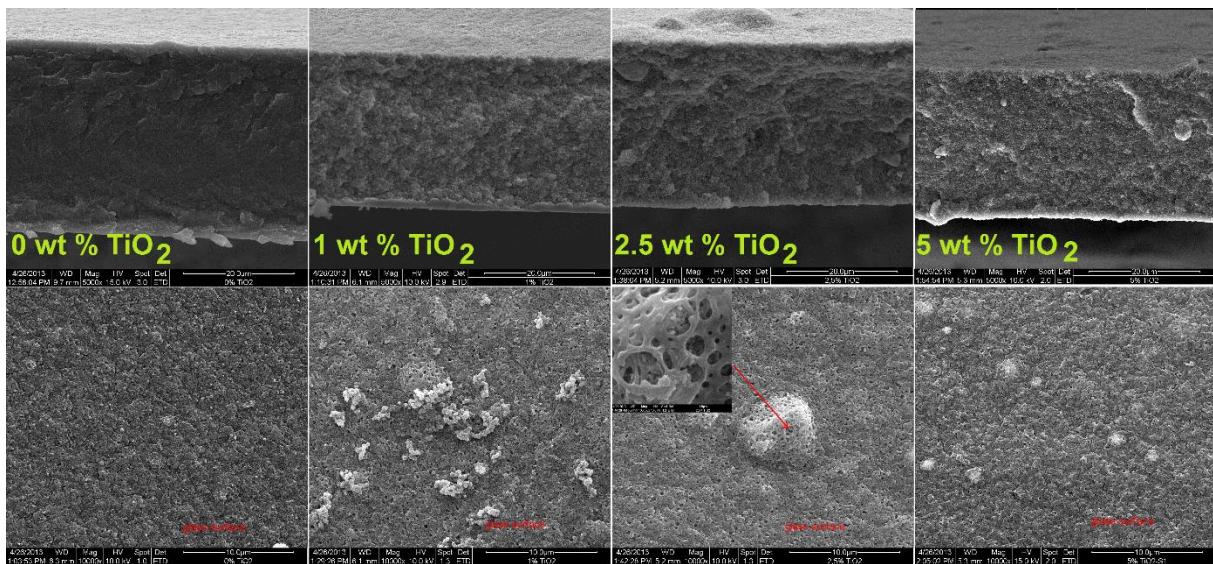
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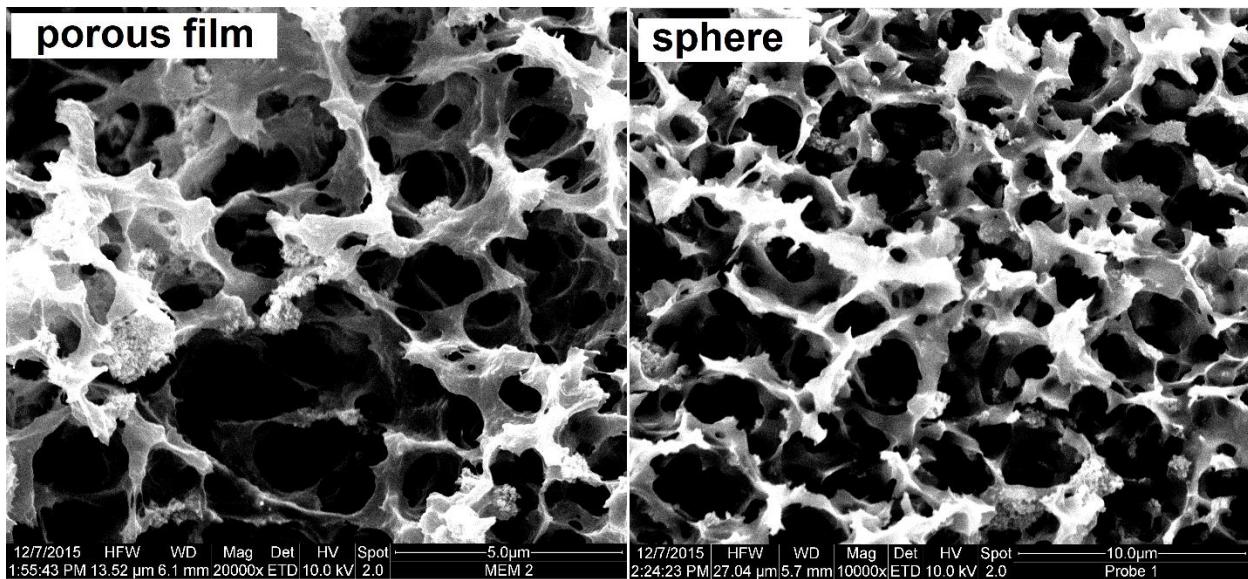
**Figure SI-1.** Particle size distribution (by number) for TiO<sub>2</sub> P90 in [Bmim][OAc] ionic liquid



**Figure SI-2.** Viscosity of an 8 wt% cellulose solution in [Bmim][OAc]/DMSO as a function of the DMSO proportion



**Figure SI-3.** Cellulose acetate membranes prepared from solutions in  $[\text{Bmim}][\text{OAc}]$  and with different  $\text{TiO}_2$  content (top surface view)



**Figure SI-4.** Cross-sections of a  $\text{C}:\text{TiO}_2 = 10:2$  membrane (left) and sphere (right) from  $[\text{Bmim}][\text{OAc}]/\text{DMSO}$  4/1 polymer solution. Note the different scale bar.