

1 Supplementary materials

2 **Antimicrobial s-PBC coatings for innovative** 3 **multifunctional water filters.**

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17 **Preparation of PP fibrous filters**

18 One of the most effective methods of production of fibrous depth filter is the melt-blown technique [Gradon
19 et al., 2005]. The principle of production is shown in Fig. S1a. The granulated polymer placed in container (1)
20 is transported with extrusion screw (2) and heated by an electric heater (3). Melted and homogenized polymer
21 is pressed into the die (5). The rate of polymer flow is controlled by the gear system (4). The die is heated with
22 hot air supplied from a compressor and air heater (6). The melted polymer is extruded through a row of
23 nozzles of the die. Air nozzles surround the polymer nozzle and hot air flows along the polymer filaments.
24 The tangential stress on the surface of the polymer filaments extend it causing reduction of the filament
25 diameter to desired value. After solidification fibers are collected on the pivot (7), which rotates and moves
26 back-and-forth to form a proper cartridge filter, Fig. S1b. Playing with process parameters a desired structure
27 of the filter is obtained. The above method was used for production of fibrous layers for purpose of the paper
28 and, in particular, the coupons used in the paper are cut out from such layers.

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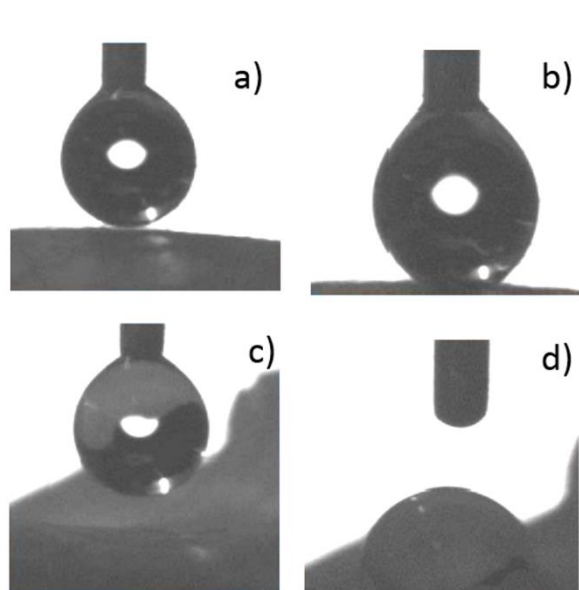
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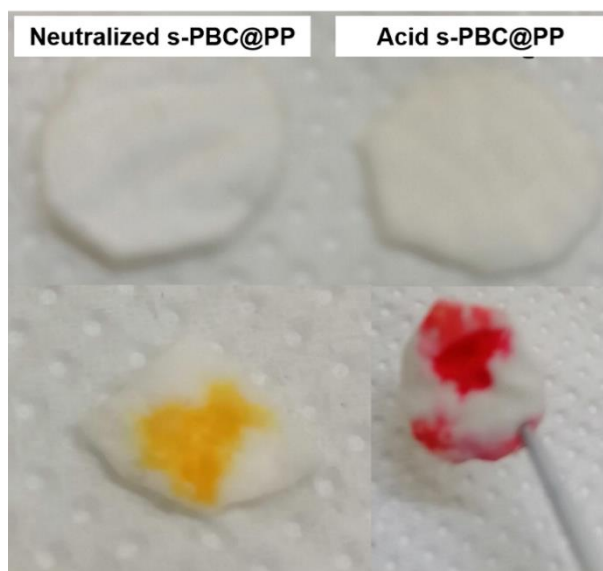
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44 **Figure S3.** Optical images of contact angle measurements for PP (a,b) and s-PBC@PP (c,d) filters.
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49 **Figure S4.** Photos of neutralized (on the left) and acid (on the right) s-PBC@PP coupons before (on the top) and
50 after (on the bottom) being in contact with Methyl Orange.
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53 2005, 5, 178-185.
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