

Fabrication of Super-hydrophobic and Super-oleophilic Boehmite Membranes from Anodic Alumina Oxide Film via a Two-Phase Thermal Approach

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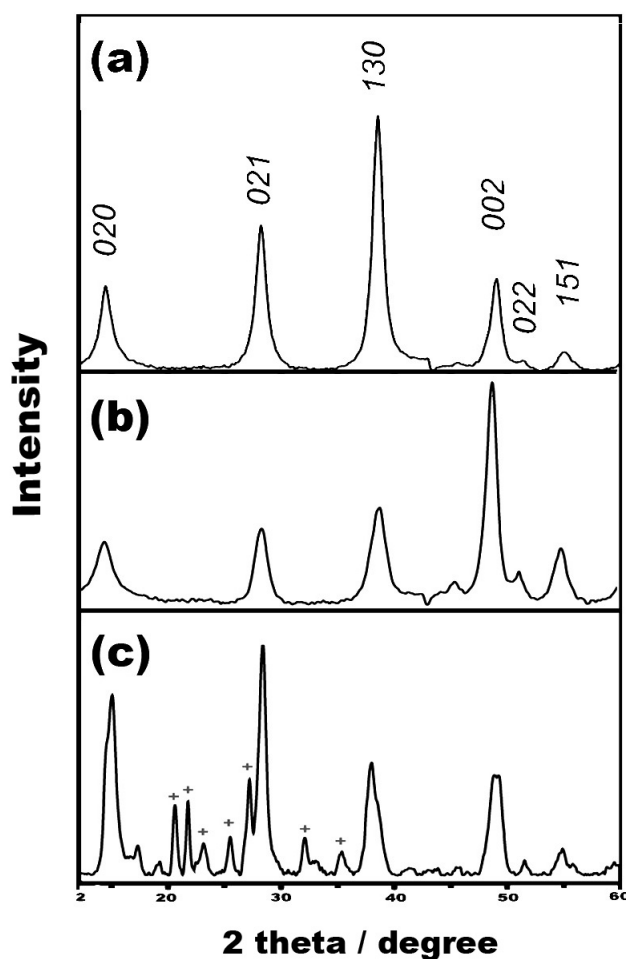


Figure S1. XRD patterns of as-prepared membranes. a) AlO(OH) membrane as shown in Figure 2b obtained by reaction (i) (JCPDS 74-1895). b) Membrane shown in Figure 3b obtained by reaction (vii). c) Membrane shown in Figure 2f obtained by reaction (v). AlPO₄ phase (JCPDS 48-0652) marked by plus symbols resulted from the partial reaction of Al and P source coexisted with AlO(OH)

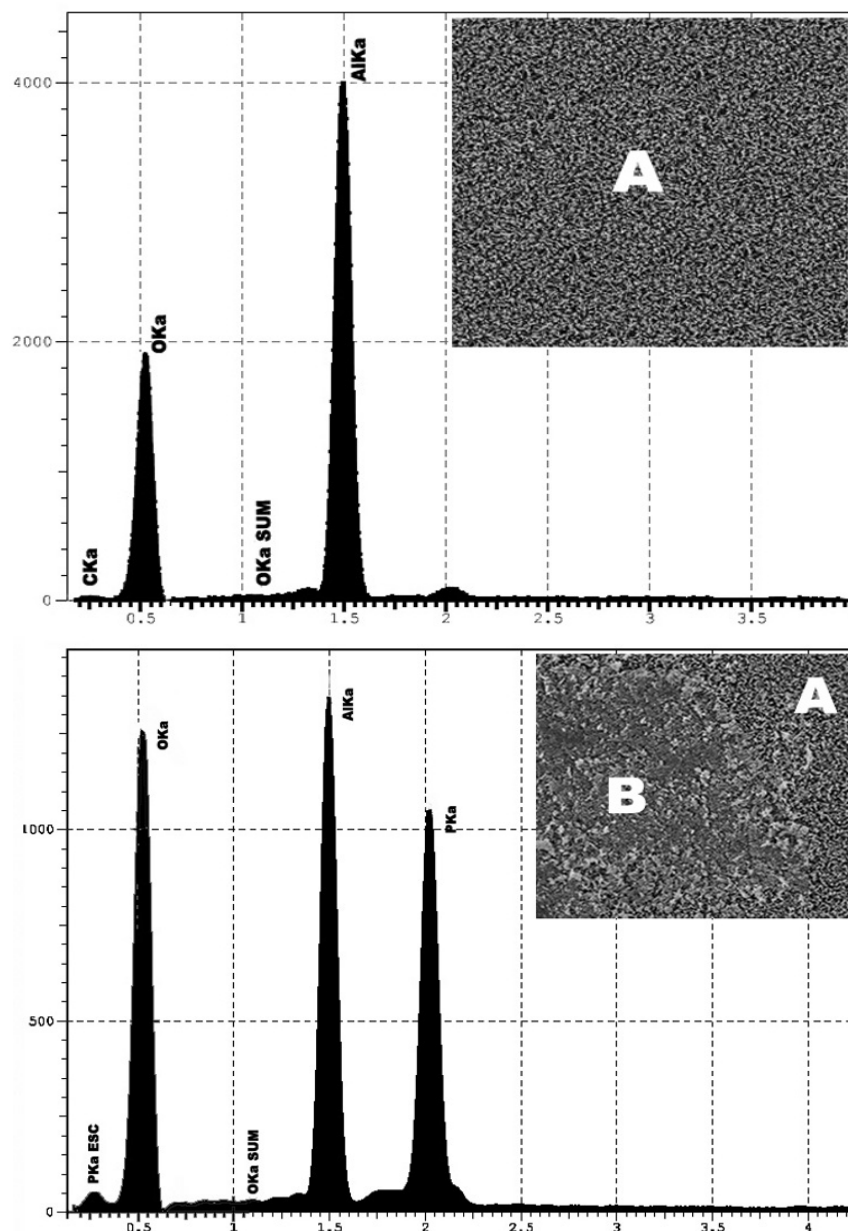


Figure S2. EDX analyses of different areas (XRD patterns shown as Figure S1-c). Area A: shows oriented AlO(OH) crystals. Area B: shows AlPO₄ crystals. The AlO(OH) crystals cover a wide area while AlPO₄ crystals only cover a minor area.

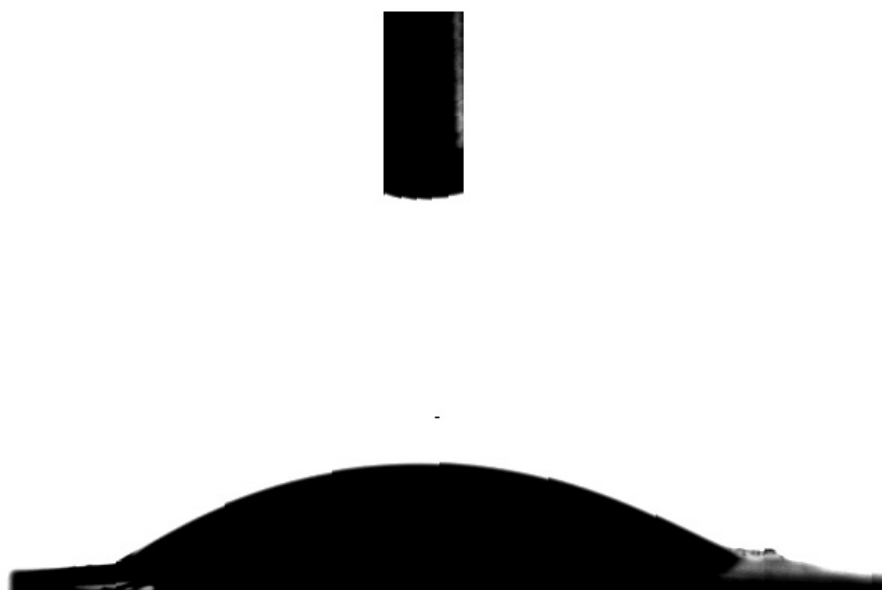


Figure S3. Shape of a water droplet on the membrane as shown in Figure 3b. The CA is about 24.5° .