

POROUS POLYMERIC MEMBRANE WITH HIGH VOID VOLUME**ABSTRACT OF THE DISCLOSURE**

Membranes comprising a single layer having a first microporous surface; a second microporous surface; and, a porous bulk between the first microporous surface and the second microporous surface, wherein the bulk comprises a first set of pores having outer rims, prepared by removing introduced dissolvable silica nanoparticles, the first set of pores having a first controlled pore size, and a second set of pores connecting the outer rims of the first set of pores, the second set of pores having a second controlled pore size, and a polymer matrix supporting the first set of pores, wherein the first controlled pore size is greater than the second controlled pore size, filters including the membranes, and methods of making and using the membranes, are disclosed.

Figure 3