

MONOLITHIC ORGANIC POROUS BODY, MONOLITHIC ORGANIC POROUS
ION EXCHANGER, AND PROCESS FOR PRODUCING THE MONOLITHIC
ORGANIC POROUS BODY AND THE MONOLITHIC ORGANIC POROUS ION
EXCHANGER

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ABSTRACT

A monolithic organic porous body includes a continuous macropore structure that includes cellular macropores that overlap to form openings having an average
10 diameter of 20 to 200 μm , the monolithic organic porous body having a thickness of 1 mm or more and a total pore volume of 0.5 to 5 ml/g, an area of a skeleton observed within an SEM image of a section of the continuous macropore structure (in a dry state) being 25 to 50%. A monolithic ion exchanger is produced by introducing an ion-exchange group into the monolithic organic porous body. The monolithic organic
15 porous body and the monolithic ion exchanger are chemically stable, have high mechanical strength, and ensure a low pressure loss when fluid passes through. The monolithic organic porous body and the monolithic ion exchanger may be used as an adsorbent having a large adsorption capacity or an ion exchanger having a large ion-exchange capacity.

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FIGURE 7