

FILTER UNIT, PURIFICATION DEVICE, AND METHOD FOR PRODUCING PURIFIED LIQUID

ABSTRACT

5 The present invention provides a filter unit, a purification apparatus, a purified liquid, and a method of producing purified liquid, wherein a filter is arranged that is suitable for the efficient purification of a solution containing a biological substance, specifically a biopharmaceutical (such as antibody drugs, gene therapy drugs, nucleic acid drugs, virus vectors, etc.), a food ingredient or a beverage ingredient, and particularly a
10 viral vector. The filter unit of the present invention comprises a separation functional layer “a” section having an average pore diameter D_a , a separation functional layer “b” section having an average pore diameter D_b , and a separation functional layer “c” section having an average pore diameter D_c , and an inlet for introducing a liquid to be treated into the separation functional layer “a” section, wherein the average pore diameters D_a , D_b , and D_c
15 satisfy the following conditions A and B, and the separation functional layers are arranged in the order of the “a” section, the “b” section, and the “c” section from the inlet.

Condition A: $30\ \mu\text{m} \geq D_a > D_b > D_c \geq 0.01\ \mu\text{m}$

Condition B: $6 \geq D_a/D_b \geq 2.8$

20 [Fig. 1]