adsorption amount of the resulting activated carbon. The activated carbon, which has a zeta-potential difference of 12.7 mV and a pore volume of pores with a pore radius of not more than 1 nm of as relatively large as 294.3 mm^3/g, has a high capacity to adsorb palladium.

[0084] Example 6 (Activated carbon No. 6)

A phenolic resin fiber was subjected to an oxidation treatment at 300°C for one hour. The oxidation-treated product was dried by distillation at 700°C for one hour. The phenolic resin fiber obtained by the dry distillation was treated at an activation temperature of 950°C in an LPG combustion gas atmosphere for 5 hours. Table 1 shows the various physical properties and palladium adsorption amount of the resulting activated carbon. The activated carbon, which has a zeta-potential difference of as somewhat high as 14.9 mV but a pore volume of pores with a pore radius of not more than 1 nm of 200 mm^3/g, has a high capacity to adsorb palladium.

[0085] Comparative Example 1 (Activated carbon No. 7)

Table 1 shows the various physical properties, palladium adsorption amount and Pd-Sn adsorption amount of a commercially available activated carbon ("GW-H" manufactured by Kuraray Chemical Co., Ltd.). The activated carbon, which has a zeta-potential difference of as high as 21.5 mV and a pore volume of pores with a pore radius of not more than 1 nm of as extremely small as 66 mm^3/g, has a low capacity to adsorb palladium.

CLAIMS

[Claim 1] A filter for noble metal adsorption, containing an activated carbon in a proportion of not less than 20% by mass,

wherein the activated carbon adsorbs a noble metal from an aqueous solution containing the noble metal, and the activated carbon has a difference (absolute value) of not more than 18 mV between a zeta-potential in a 10 mmol/L aqueous solution of sodium tetraborate and a zeta-potential in a 0.01 mmol/L aqueous solution of sodium tetraborate, and has a total pore volume of pores with a pore radius of not more than 1 nm of 150 to 500 mm^3/g, wherein the zeta-potential is calculated as disclosed in paragraphs [0057] and [0058] of the description.

[Claim 2] A filter for noble metal adsorption according to claim 1, which is a liquid-permeable filter, wherein the activated carbon has a carbohydrate solution decolorizing performance of not less than 30%, wherein the carbohydrate solution decolorizing performance is calculated as disclosed in paragraphs [0059] to [0061] of the description.

[Claim 3] A filter according to claim 1 or 2, wherein the aqueous solution containing the noble metal is a plating wastewater.

[Claim 4] A method for recovering a noble metal from an aqueous solution containing the noble metal, the method comprising:

adsorbing the noble metal on a filter recited in any one of claims 1 to 3.

adsorption amount of the resulting activated carbon. The activated carbon, which has a zeta-potential difference of 12.7 mV and a pore volume of pores with a pore radius of not more than 1 nm of as relatively large as 294.3 mm^3/g, has a high capacity to adsorb palladium.

[0085] Comparative Example 1 (Activated carbon No. 7)

Table 1 shows the various physical properties, palladium adsorption amount and Pd-Sn adsorption amount of a commercially available activated carbon ("GW-H" manufactured by Kuraray Chemical Co., Ltd.). The activated carbon, which has a zeta-potential difference of as high as 21.5 mV and a pore volume of pores with a pore radius of not more than 1 nm of as extremely small as 66 mm^3/g, has a low capacity to adsorb palladium.

CLAIMS

[Claim 1] A filter for noble metal adsorption, containing an activated carbon derived from a plant carbonaceous material in a proportion of not less than 20% by mass,

wherein the activated carbon adsorbs a noble metal from an aqueous solution containing the noble metal, and the activated carbon has a difference (absolute value) of not more than 18 mV between a zeta-potential in a 10 mmol/L aqueous solution of sodium tetraborate and a zeta-potential in a 0.01 mmol/L aqueous solution of sodium tetraborate, and has a total pore volume of pores with a pore radius of not more than 1 nm of 150 to 500 mm^3/g, wherein the zeta-potential is calculated as diclosed in paragraphs [0057] and [0058] of the description.

[Claim 2] A filter for noble metal adsorption according to claim 1, which is a liquid-permeable filter, wherein the activated carbon has a carbohydrate solution decolorizing performance of not less than 30%.

[Claim 3] A filter according to claim 1 or 2, wherein the aqueous solution containing the noble metal is a plating wastewater.

[Claim 4] A method for recovering a noble metal from an aqueous solution containing the noble metal, the method comprising:

adsorbing the noble metal on a filter recited in any one of claims 1 to 3.