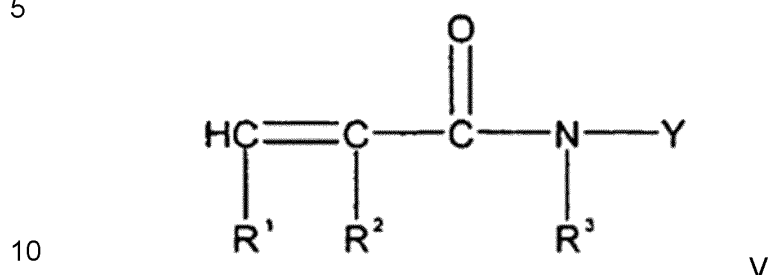


Claims

1. A separation material comprising a hydroxyl-group containing base matrix, to the surfaces of which polymer chains are grafted by covalent bonding,
 5 characterized in that the polymer chains comprise amino acid end groups - N(Y)-R3 with
 - a. Y being independently from each other H or CH₃, preferably H, and
 - b. R3 being -CHCOOMR₄
 with R₄ being C1 to C4 alkyl or C1 to C4 perfluoroalkyl
 10 and M being H, Na, K, or NH₄.
2. Separation material according to claim1 whereby the monomer units of the polymer chains are linked in a linear manner and each monomer unit comprises an end group -N(Y)-R3.
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3. Separation material according to one or more of claim1 to 2 whereby the ionic density is between 400 - 900µeq/g.
4. Separation material according to one or more of claim1 to 3 whereby Y is H
 20 and R₄ is isopropyl and/or isobutyl.
5. Separation material according to one or more of claim1 to 4 whereby the hydroxylgroup containing base matrix comprises aliphatic hydroxyl groups.
- 25 6. Separation material according to one or more of claims 1 to 5 whereby the base matrix is formed by copolymerisation of a hydrophilically substituted alkyl vinyl ether selected from the group of 1,4-butanediol monovinyl ether, 1,5-pentanediol monovinyl ether, diethylene glycol monovinyl ether or cyclohexane-dimethanol monovinyl ether and divinylethyleneurea (1,3-
 30 divinylimidazolin-2-one) as crosslinking agent.

7. Separation material according to one or more of claims 1 to 6 whereby the separation material is preparable by subjecting the hydroxyl group containing base matrix to a cerium (IV) catalyzed graft polymerization of monomers according to formula V

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with R₁, R₂ and Y being independently from each other H or CH₃

R₃ being -CHCOOMR₄

with R₄ being C₁ to C₄ alkyl or C₁ to C₄ perfluoroalkyl

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and M being H, Na, K, or NH₄.

8. A process for the chromatographic purification and/or separation of antibody drug conjugates (ADCs) by contacting the sample comprising the ADCs with a separation material comprising a hydroxyl group containing base matrix, to the surfaces of which polymer chains are grafted by covalent bonding, characterized in that the polymers comprise end groups -N(Y)-R₃ with Y being independently from each other H or CH₃

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R₃ being -CHCOOMR₄

with R₄ being C₁ to C₄ alkyl or C₁ to C₄ perfluoroalkyl,

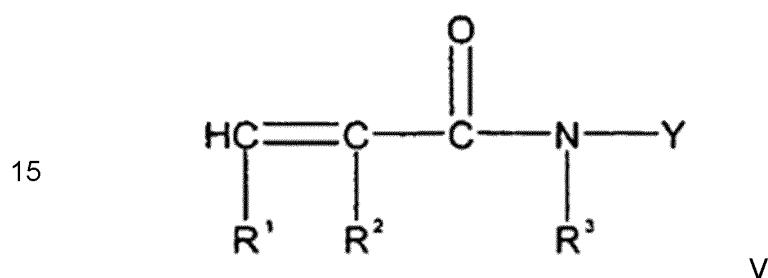
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and M being H, Na, K, or NH₄.

9. Process according to claim 8 whereby the ADC target molecules are bound to the separation matrix at a pH between 2 and 7, optionally washed and eluted by pH change to alkaline pH.

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10. Process according to claim 8 or 9 whereby the sample is applied to the separation matrix at an ionic density between 10-1200 μ eq/g.
11. Process according to one or more of claims 8 to 10, whereby between 10 mg
5 and 100 mg ADCs are bound per ml of the separation material.
12. Process for the preparation of a separation material according to one or more of claims 1 to 7 by subjecting the hydroxyl group containing base matrix to a cerium (IV) catalyzed graft polymerization of monomers according
10 to formula V



- with R¹, R² and Y being independently from each other H or CH₃,
R³ being -CHCOOMR⁴
- 20 with R⁴ being C1 to C4 alkyl or C1 to C4 perfluoroalkyl, and M being H, Na, K, or NH₄.

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