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(54) Title: SINGLE STEP PROCESS FOR PREPARATION OF PURE IMMUNOGLOBULIN FROM PLASMA

(57) Abstract: There is provided a process for the production of at least 95% pure immunoglobulin from plasma; the process comprising applying the plasma to a first fluid stream of an electroseparation system, the electroseparation system comprising a separation membrane disposed between a cathode and an anode, the separation membrane having defined pore sizes; a first restriction membrane disposed between the cathode and the separation membrane and defining a first fluid path for a first fluid stream wherein the first restriction membrane prevents molecules in the first fluid stream contacting the cathode; a second restriction membrane disposed between the anode and the separation membrane and defining a second fluid path for a second fluid stream wherein the second restriction membrane prevents molecules in the second fluid stream contacting the anode; and applying an electric field to the fluid streams to selectively cause positively charged immunoglobulin molecules to cross the separation membrane toward the cathode and into the second fluid stream. Alternatively the process comprises applying the plasma to the second fluid stream of the electroseparation system, and applying an electric field to the fluid streams to selectively cause negatively charged molecules in the plasma to cross the separation membrane toward the anode and into the first fluid stream..

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