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青钱柳叶三萜大孔吸附树脂纯化工艺 Purification of Triterpenes in Cyclocarya paliurus Leaves by Macroporous Resins 吴彩娥 方升佐 徐琳 杨万霞 李婷婷 贾韶千 南京林业大学

关键词: 青钱柳 三萜 大孔吸附树脂 纯化

摘 要: 为研究大孔吸附树脂纯化青钱柳三萜的工艺,筛选了适宜的大孔吸附树脂,并通过静态和动态的吸附与解吸试验,确定了纯化工艺参数。结果表明,在供试的3种大孔吸附树脂中,D-101型大孔吸附树脂适合分离青钱柳叶三萜,其吸附量和解吸率分别为57.5 mg/g和96.51%; 动态吸附青钱柳叶三萜时的最适宜进样流速与进样质量浓度分别为 2 BV/h和1.5 mg/mL; 动态解吸时洗脱剂的最适宜体积分数与洗脱速度分别为50%乙醇和2 BV/h。经大孔吸附树脂分离纯化后三萜的纯度是粗提物的4.1倍,得率为74.66%,表明D-101型大孔吸附树脂纯化青钱柳三萜效果较佳。 Purification process of triterpenes in Cyclocarya paliurus by macroporous resins was studied. The suitable macroporous resin was screened, the technological conditions of purification were studied, and the optimum purification processing was obtained by the static adsorption and desorption tests as well as dynamic adsorption and desorption tests. The results show that, in three types of the experimented macroporous resins, D-101 macroporous resin presents the best effect of separation with the adsorption capacity and desorption rate of 57.5 mg/g and 96.51%, respectively; through dynamic adsorption experiments, the optimum sampling rate and mass concentration is 2 BV/h and 1.5 mg/mL respectively; through dynamic desorption experiments, the optimum ethanol content is 50%, with eluting velocity of 2 BV/h By macroporous resin, the purity of Cyclocarya paliurus triterpenes is 4.1 times higher than crude extracts, the recovery reaches 74.66%. In conclusion, D-101 resin can be applied to purify triterpenes in Cyclocarya paliurus .

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