



## 冻融对蚕砂提取液澄清效果的影响研究

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**中文摘要:**目的: 蚕砂提取液在醇提及酸沉后仍存在悬浮物,影响了提取液的澄清效果,而且提取液中的多糖以及可溶性蛋白对后续纯化过程中采用的树脂柱损害较大。该文旨在通过改进工艺的方法使提取液达到澄清要求,并减小对树脂柱的污染。方法: 在工艺的澄清过程中增加冻融预处理,通过实验方法研究了冻融中3种不同的解冻方法对蚕砂提取液澄清效果的影响,并以提取液多糖含量、蛋白质含量、透射比以及有效成分处理前后的收率作为效果评定指标。结果: 通过对3种冻融方法进行实验研究,表明冻融中的解冻选用微波方法最为适宜。结论: 在澄清过程中增加冻融预处理方法,不仅可以有效提高蚕砂提取液的澄清效果,减小对后续纯化中树脂柱的损害,而且也很好保留了提取液中的有效成分。

**中文关键词:** 蚕砂提取液 冻融 澄清

### Effect of freeze-thaw on clarify performance of extracting solution with silkworm dropping

**Abstract:**Objective: The approach of this paper is make extracting solution's clarity achieve the request level and reduce the pollution of resinic columns through improved technical procedure. Silkworm dropping have sediment with alcohol extract and acid precipitation, affect the clarify performance quality, and polysaccharide and protein in extracting solution is badly for resinic columns in purification process. Method: Added freeze-thaw pretreatment in clarified process and researched three thaw methods' effect on clarify performance of extracting solution with silkworm dropping. The adding effects were evaluated by content of polysaccharide and protein, transmittance and the yield of active ingredients during this adding process. Result: Through comparing researches of three thaw methods, the microwave thaw method was the best approach. Conclusion: Adding freeze-thaw pretreatment in clarify process is not only can improve the clarity of extracting solution with silkworm dropping on ideal level, reduce pollution of resinic columns, but also remain ideally the active ingredients.

**keywords:** extracting solution with silkworm dropping freeze-thaw clarify

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