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超声场对中和法制备 Sb_2O_3的影响

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摘要 对在超声场作用下采用氨水中和氯氧锑($Sb_4O_5Cl_2$)制备超细立方晶型Sb_2O_3的工艺过程和条件进行了研究. 结果表明, 在超声场作用下制得的Sb_2O_3为立方晶型, 当超声功率为100W, 超声时间30min, 温度为20℃时, Sb2O3的平均粒径为0.777μm, 其分散性较好. 通过XRD、SEM和激光粒度仪等测试手段, 探讨了超声功率、超声时间、氯氧锑与蒸馏水的调浆液固比和温度等条件对Sb_2O_3晶型和颗粒粒径的影响.

关键词 超声场 超细 立方晶型 Sb2O3

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Effect of Ultrasonic Field on Preparation of Sb_2O_3

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Abstract The preparation of ultrafine cubic Sb_2O_3 was studied by using oxychloride (Sb4O5Cl2) neutralized with ammonia under ultrasonic field. The results show that Sb_2O_3 obtained in the process is cubic crystalline and well-dispersed, which has an average particle size of 0.777μm when the ultrasonic power is 100W, the ultrasonic time is 30min, and the temperature is 20℃. The effects of ultrasonic power, time, ratios of distilled water to oxychloride, and temperature on the crystal structure and particle size of the Sb_2O_3 formed were investigated by means of XRD, SEM and laser sizer.

Key words ultrasonic field ultrafine cubic crystal Sb2O3

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