



## 分析数据

### 1. 元素分析: 分子式 $C_9H_{20}O$

计算值(%): C, 74.94; H, 13.97;

实验值(%): C, 75.18; 75.21; H, 13.41; 13.76;

### 2. 物理常数

冻点: 规定技术指标  $-7^{\circ}\sim-4^{\circ}\text{C}$ ; 进口主醇  $-4.2^{\circ}\text{C}$ ; 本品  $-5.5^{\circ}\text{C}$

折光率  $n_D^{20}$ : 规定技术指标 1.432~1.434; 进口主醇 1.4321; 本品 1.4325

### 3. IR图谱

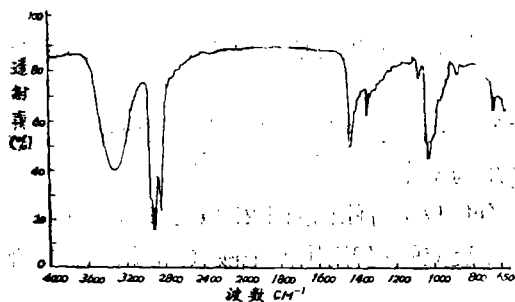


图1 自制壬醇红外图谱

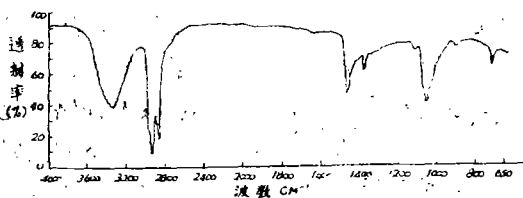


图2 进口化学纯级壬醇红外图谱

合成具有上述质量指标的主醇可用于外用避孕药的杀精子剂线型壬苯醇醚的合成,并能做出合乎质量要求的成品。

红外图谱及元素分析均由董善士等同志完成,特此志谢。

## 参考文献

[1] Bouvault, et al; Comp rend 136:6761, 1903

[2] 福岛: 油化学 8:240, 1959; 9:471、527、593、638, 1960; 10:6、215、

565、635、701, 1961

# A NEW METHOD OF SYNTHESIS OF NONYL ALCOHOL

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## Abstract

This paper describes a new method for synthesis of nonyl alcohol using pelargonic acid as starting material. The procedure is as follows.

Mix pelargonic acid with butyl alcohol and small amount of sulfuric acid and reflux for one and half hours to give butyl pelargonate. The ester was reduced with metallic sodium in the presence of a large amount of n-butyl alcohol until all the sodium disappears. Then pass steam to drive out the crude nonyl alcohol, fractionating in vacuo and collect the pure nonyl alcohol at 104°-112°C/8mm

5.5 parts of nonyl alcohol can be obtained from 10 parts of pelargonic acid and the yield is 87% (based on the pelargonic acid actually used)

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