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## Separation and Determination of the Cobalt in Different Oxidation States in Cobalt Neodecanoate

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**Abstract:** The separation and determination of the cobalt in different oxidation states in cobalt neodecanoate were investigated. The effective separation of divalent cobalt, Co(II), and trivalent cobalt, Co(III), was carried out by using acetylacetonate since the formed complexes had different solubility. The determination of Co(II) content in cobalt neodecanoate was carried out by using complexometric titration and based on the difference in stability constant of the complexes. Through this method, separation and determination of the cobalt in self-made and commercial neodecanoate cobalt samples were successfully achieved.

**Keywords:** neodecanoate cobalt; cobalt content; complexometric titration; divalent cobalt; trivalent cobalt

### 信息·资讯

#### 燕山石化新碳五分离装置建成中交

日前, 中国石化北京燕山石油化工公司新的年产15万t碳五分离装置及其配套设施建成中交。项目于2012年5月开工建设, 主要包括碳五主体装置、碳五罐区、汽车装卸站、碳五罐区街区以及循环水、消防水、供电等系统配套设施。碳五分离装置是燕山石化的重点建设项目, 可对乙烯装置副产碳五

馏分进行综合利用, 生产高附加值产品, 降低乙烯装置生产综合成本。装置投产后主要生产异戊二烯、间戊二烯、环戊二烯等。其中异戊二烯将作为公司年产3万t异戊橡胶装置的主要生产原料, 用于生产可替代天然橡胶的异戊橡胶。

崔小明