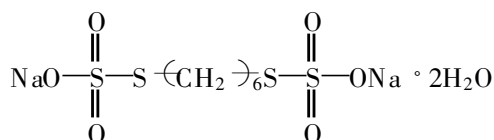


环, 因此它们的作用机理是相似的。这里以 DHTS 为代表, 说明抗返原剂在普通硫黄硫化体系中的作用机理(见图 7)。DHTS 结构式为:



在硫化时多硫交联键断裂, 插入 $-\text{S}-(\text{CH}_2)_6-\text{S}-$ 基团, 形成杂合交联键, 提高 DHTS 用量有利于这种杂合交联键的生成。硫化返原时, 杂合交联键转换成两侧各有一个硫原子的六亚甲基基团, 这样使得聚合链之间比一个硫原子连接时具有更好的弹性。此外, 在这种体系中, 连接碳链的硫原子数目减少和硫黄利用率的提高, 降低了硫化返原的程度。

3 结论

(1) 在 NR 普通硫黄硫化体系中加入抗返原剂 DHTS, HVA-2 和 Si69 可以提高硫化胶的抗返原性, HVA-2 的作用最好, DHTS 次之, Si69 较差。

(2) 抗返原剂在提高 NR 抗返原性的同时, 老化性能也得到明显改善。

(3) NR 普通硫黄硫化体系硫化反应服从一级反应规律。

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Study on NR Reversion Part 1. Conventional Sulfur Curing System

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Abstract A study was made on the NR reversion. The inhibition effect of some commercial anti-recovery agents, such as DHTS, HVA-2 and Si69, on the NR reversion was investigated by determining curing curve, physical properties and swelling index of the anti-recovery agent-containing compounds. The test results showed that HVA-2 was the most effective anti-recovery agent, DHTS was the second, and Si69 was the most poorest; HVA-2 and DHTS improved the thermo-oxidative stability. It was found by analysing the curing curve that the sulfur curing reaction obeyed the first order reaction law.

Keywords NR, reversion, anti-recovery agent

日本开发汽车气囊安全带

日本本田汽车公司日前宣布在世界上首次开发出驾驶员用气囊安全带, 并计划尽早投入实际使用。据介绍, 气囊安全带可大大减轻汽车发生撞击后驾驶员的受伤害程度。如果将气囊安全带和气囊安全包组合使用,

效果则更理想。新开发出的气囊安全带采用一种新型膨胀材料, 当发生撞击时膨胀材料会自动膨胀并收紧安全带, 安全带膨胀后会吸收和缓冲撞击产生的力, 减轻和缓解使用者从头部到胸部的负荷。

(摘自《中国汽车报》, 1997-11-06)