

化返原反过来促进动态生热,这种恶性循环是导致轮胎报废的重要原因。

### 3 结论

(1)NR 的硫化返原随温度的升高而加剧,其原因是多硫键大量地减少,一方面生成单、双硫键,另一方面断裂,总交联密度下降,而且硫化温度越高硫化返原现象越明显。

(2)NR 硫化胶的力学性能随着硫化时间的延长先增高后迅速降低,最后基本保持平衡,与硫化曲线和总交联密度变化趋势保持一致。

(3)升高温度和返原都使硫化胶的  $T_g$  向高温方向移动,这与其结构变化相符。硫化胶的动态性能随着硫化温度提高而发生变化,其变化规律与硫化返原相一致。

(4)动态生热引起硫化返原,硫化返原进一

步促进动态生热,这种恶性循环是引起轮胎报废的重要原因。

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## Effect of reversion on structure and properties of NR vulcanizates

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**Abstract:** The effect of the reversion on the structure and properties of NR vulcanizate was investigated. The crosslink density and distribution of NR vulcanizate were determined during the reversion by the devulcanization with the chemical probes. The test results were in accordance with the mechanism of NR cure and reversion. The physical properties of NR vulcanizate with the cure time at different temperatures, as well as its dynamic properties during cure and reversion were determined. The results showed that the dynamic heat build-up resulted in the reversion, which led the increase of loss modulus and the premature failure of tire.

**Keywords:** NR; reversion; crosslink density; chemical probe

### 双星制出 DS-308HW 合帮胶

中图分类号: TQ330.38<sup>+</sup>7 文献标识码: D

双星集团在强大技术力量的支撑下,本着加强环保且增强鞋料处理效果的目的,根据相似相容的原理,开发出挥发性好、粘合性强的鞋用合帮胶 DS-308HW。该胶不仅具有以上特点,而且还具有快干、合帮挺性好、不含有毒物质的特点。该产品的研制成功,大大改善了制鞋业操作工人的工作环境,可有效防止含苯有机溶剂对人体的侵害,且使用方便,可大大提高工作效率。

(摘自《中国化工报》,2000-11-16)

### DK 系列地铁橡胶密封垫通过鉴定

中图分类号: TQ336.4<sup>+</sup>2 文献标识码: D

由中橡集团西北橡胶塑料研究设计院和上海长宁橡胶厂共同研制的 DK 系列地铁多孔型 EPDM 密封垫,最近在上海通过鉴定。这种新型结构的 DK 系列地铁橡胶密封垫具有密封性能好、防水、防霉变、使用寿命长等特点,产品质量达到技术标准和设计要求,居国内领先水平,达到国外同类产品水平。目前,该产品成功应用于上海地铁 1 号线,并将在 2 和 3 号线工程中使用。

(摘自《中国化工报》,2000-11-15)