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Study on Degradation of NR Vulcanizate by High Energy Ultraviolet Light

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Abstract: The degradation process of NR vulcanizate was studied by using high energy ultraviolet light (UV) reaction vessel, and the degradation degree of NR vulcanizate, the molecular structure of sol and the UV degradation mechanism of NR vulcanizate were investigated. The results showed that, NR vulcanizate was degraded quickly under the irradiation of high energy UV, as the exposure time prolonged, sol mass fraction increased, and sol molecular weight decreased. During the UV irradiation process, oxygen was involved in the UV degradation process of NR vulcanizate, the main chain of the NR vulcanizate was broken, the degradation products contained oxygen groups, and the hydrophilic property increased. With further exposure, the oxygen-containing groups in degradation products reacted with other groups under UV irradiation, the content of oxygen groups was reduced, and hydrophilic property decreased.

Key words: ultraviolet light degradation; NR vulcanizate; degradation mechanism; sol

一种汽车护套用橡胶

中图分类号: TQ336.4 文献标志码: D

由柳州市富城机械有限责任公司申请的专利(公开号 CN 104761778A, 公开日期 2015-07-08)“一种汽车护套用橡胶”, 涉及的汽车护套用橡胶配方为: 氯丁橡胶 (S40V) 70, 蛋白质 10, 硬脂酸钙 2.5, 黑土 30, 粉煤灰 8, 氯氟醚菊

酯 0.5, β -羟烷基酰胺 1, 无水氯化钙 5, 乙酐柠檬酸三乙酯 4, 氧化铁红 3, 甘油三醋酸酯 4, 硫化钠 3.5, 苏打粉 5, 双咪唑烷基脲 0.6, 六甲氧甲基三聚氰胺树脂 1, 水 30, 硫黄 1.5, 促进剂 CZ 0.8。该汽车护套用橡胶具有稳定性好、适用温度范围大和不易老化的优点。

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