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A STUDY
ON MALEIMIDE BASED
ANTIOXIDANTS

BY

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SUMMARY

Two maleimide based antioxidants, an amine antioxidant N-(4-anilinophenyl) maleimide and a phenolic antioxidant N-(3,5 ditertiary butyl-4-hydroxy) phenyl maleimide were synthesised. The stability of the antioxidants synthesised were studied by volatility measurements.

N-(4-anilinophenyl) maleimide was reacted with natural rubber in toluene at 80°C for 18 hours in the presence of benzoyl peroxide as initiator. The efficiency of binding under these conditions were studied by varying the concentration of initiator and also the ratio of antioxidant to rubber(isoprene units). Infra-red spectroscopy was used for the estimation of the extent of binding in each case.

The efficiency of the antioxidant synthesised was evaluated by oxygen absorption measurements in cumene at 100°C and also in vulcanized rubber.

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