Approach to the epoxidation of natural rubber through a sonochemical method

Epoxidized Natural Rubber (ENR) is derived from partially epoxidizing the natural rubber (NR) molecule, resulting in enhanced properties such as gas permeability, resistance to oil, non-polar solvents, heat, oxygen and ozone. The commonly employed method for ENR preparation is in-situ performic epoxidation, involving the controlled addition of hydrogen peroxide and formic acid to generate performic acid during the epoxidation reaction.

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Associated SDG goal is Responsible consumption and production (12).

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Reference:

N. Lorwanishpaisarn, P. Sae-Oui, **C. Sirisinha**, C. Siriwong, A new approach to the epoxidation of natural rubber through a sonochemical method, Industrial Crops & Products, 197, 116629, 2023.