oligoperoxide layer and are partially clenched in its cured structure. Simultaneously, oligoperoxide is bonded with both PET surface and dextran macromolecules.

THE OBTAINING OF PETROLEUM POLYMERIC RESINS IN THE PRESENCE OF EPOXY RESINS PEROXY DERIVATIVES

Michael Bratychak, Olena Shyshchak, Oleg Grynyshyn and Olena Astakhova

Lviv Polytechnic National University

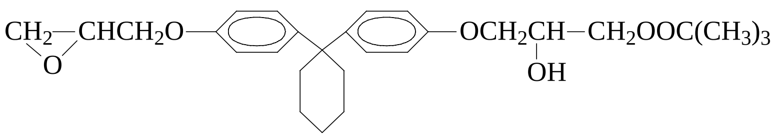
It has been shown previously that petroleum polymeric resins with functional groups can be obtained by radical copolymerization of unsaturated compounds present in the C_9 fraction of hydrocarbon pyrolysis in the presence of aliphatic azocompounds with hydroxy, carboxy, epoxy and peroxy groups.

It is suggested in this work to use oligomeric peroxides as initiators for the copolymerization reaction of the C_9 fraction for the obtaining of petroleum polymeric resins (PPRs) with epoxy groups by following formulae:

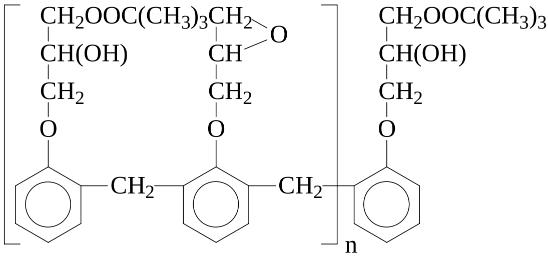
$$(CH_3)_3COOCH_2\underset{\displaystyle OH}{\underset{|}{C}}HCH_2[OC_6H_4C(CH_3)_2C_6H_4OCH_2\underset{\displaystyle OH}{\underset{|}{C}}HCH_2]_n—$$

$$—OC_6H_4C(CH_3)_2C_6H_4OCH_2\underset{\diagdown O \diagup}{CH-CH_2}$$

(I)



(II)



(III)

n = 0–1.

The PPRs obtaining has been studied using peroxides I, II and III at the temperatures 383–413 K during 1–60 hours. The initiator amount is 0.5–15.0 mas %. The optimum conditions for PPRs synthesis have been determined. It has been shown that the synthesized resins have molecular mass 2150–5050, the epoxy number is 0.5–1.4 % and unsaturation is 12.7–16.9 g Br_2/100 g product. PPRs are used as additives to polymeric compositions.

FLOCCULATION BY HIGH PERFORMANCE MODIFIED POLYSACCHARIDES

Ram Prakash Singh

Former Vice-Cancellor, University of Lucknow,
Lucknow- 226007, India

Global environment concerns and sustenable ecofriendly approach in development of materials for high technology have directed our efforts to generate better flocculants based on modified polysaccharides for waste water and industrial effluent treatment.

Plysaccharides are inexpensive, abundantly available from plant, forest and microbial resources, biodegradable and shear stable however poorly efficient at high doses. On the other hand polyacrylamide based