

LOW-TEMPERATURE PROCESSING OF WASTE TYRES IN EXPERIMENTAL RETORT

R. JOONAS, V. YEFIMOV, S. DOILOV

Institute of Oil Shale at Tallinn Technical University
12 Järveküla St., Kohtla-Järve, 30328 Estonia

G. SERKOVSKAJA

Scientific-Research Centre of Carcinogenesis,
Oncological Centre of the Russian Academy of Medical Sciences
24 Kashirskoje Rd., 115478 Moscow, Russia

Testing of waste tyre chips (60–80 mm) in an experimental retort at the end of 1998 was successful. Descending of tyre particles along the retort occurred normally when practically dry coke was discharged. No soot formation was observed. Throughput rate of the retort was 660 kg tyres daily, oil yield – 46 % (83 % of the Fischer Assay yield). The coke formed was reduced to small pieces, mostly down to 6.3 mm.

The coke formed has chemical and physical properties enabling to create a nonwaste technology for retorting waste tyres. Successful processing of tyre chips in the experimental retort should be followed by testing on industrial scale.