

## 스크랩 페타이어의 열분해로 인한 수율분석 및 카본블랙 생산 특성에 관한 실험적 연구

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The disposal of the large tonnage of automotive waste tire generated worldwide is becoming an increasing environmental and economic problem. An automotive waste tires have been generated more than 330 million tons per year of worldwide in 2010 years. In this study, experiments have been conducted on the sample of scrap automotive tire wastes to determine particularly the effect of temperature and residence time on the pyrolysis product yields. The maximum oil yield of 50 wt. %, char yield of 58 wt. % and gas yield of 20 wt. % were obtained at a final pyrolysis temperature of 400°C, 600°C and 800°C, under N<sub>2</sub> atmosphere in a tube furnace heating reactor system. Scanning electron microscopes (SEM) and transmission electron microscopes (TEM) were analyzed for investigation of structure and particle size. We obtained same structure and particle size in 1300°C char.