

# Hydrocarbon Liquid Fuels Produced by Pyrolysis of Medical Waste Polymers <sup>†</sup>

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**Abstract:** A novel coronavirus disease (COVID-19) epidemic in December 2019, found in Wuhan, (capital of Hubei province of China), caused by Severe acute respiratory syndrome coronavirus 2 (SARS-COV-2). Where a risk of health cannot be ignored, or measures cannot be improved, the utilization of appropriate PPEs could be a powerful measure to secure the workers' health. However, we are concerned about the dumping and harmful outcome of PPEs in the environment. Most of the polymers in PPE waste are predominantly hydrocarbon in nature; thus can be utilized as feedstock for synthetic enterprises or as a fuel. Pyrolysis of plastic waste could have a significant role in modifying this waste into important hydrocarbons, which can be utilized either as power or as feedstock in the petrochemical business. This study is carried out to find the solution by modifying non-biodegradable plastic into useful segments through the pyrolysis process. Out of 50 gm plastic waste, the most extreme fluid yield was acquired 35ml at 100°C and 2ml at 17.59°C. Other useful products, wax (11gm) and char (4gm), were formed at 30°C. Many fumes were released throughout the process. Potential applications of the oils were also examined.

**Keywords:** waste; COVID-19; PPE; pyrolysis; biofuel.

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## Conflicts of Interest

The authors declare no conflict of interest.