

### GC analysis of tar composition produced from waste gasification.

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The main contaminants in the product gases of the gasification are dust and soot particle, tars. Typical tar formations are benzene, naphthalene, phenanthrene, pyrene, and benzopyrene (PAH). Therefore, a detailed analytical work on the composition and chemical structure of tar will be advantageous to its processing and utilization, and enable it to be a chemical and materials of great value. For tars, however, no well-developed and widely used measurement techniques exist in these related technology fields. For better understanding of tar structure during thermo-chemical conversion of the tar content and composition in the producer gas was analyzed with a gas chromatograph (GC). Quantitative determination of each compound is performed by GC analysis using internal standard method. The method of internal standards is used to improve the precision of quantitative analysis. In this work, we study GC analysis of tar composition produced from waste gasification using different internal standards.