Gasification Melting Characteristics of Automobile Shredder Residues in 5t/d Pilot Plant

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Automobile shredder residue (ASR) is final product generated during the shredding process of ELVs (End-of-Vehicles). Based on the gasification and kinetics data in Lab. scale reactor, 5 ton/day pilot plant of shaft type has been designed and constructed for ASR thermal treatment. Due to the difficulty of the application of gasification melting system to ASR, stable operation condition has been obtained through many trial and error. Also, valuable operation data have been obtained such as the temperature and pressure distribution in gasifier, combustible gas from the gasifier, and Dioxine and flue gas analysis from stack.