# Mineralogy and Chemical Composition of Greek and Chinese Coal Fly Ash: Research for Potential Applications

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KEYWORDS: fly ash, coal, mineralogy, chemistry, Greece, China

ABSTRACT

In this paper the mineralogy and geochemistry of selected Greek and Chinese coal fly ash are examined. Coal is the main source of energy in Chinese and Greek energy system. China is one of the main coal-burning countries, while in Greece lignite has a share of 75% in the electricity production. The production of fly ash in China was around 100 million tonnes in 2002 while in Greece lignite fly ash accounts around 10 Mt. Even though the mineralogical and chemical composition of the fly ashes coming from these two countries differs, there are common questions on the utilisation of this material. The variation of the Greek fly ash' chemical composition, from Ca-poor to Ca-rich fly ash, has resulted to applications such as dam construction, use in cement and possibly in concrete and road construction. On the other side Chinese fly ash, which is rich in mullite, is broadly applied for brick making. The production of zeolite from Greek and Chinese fly ashes will also be examined.

Submitted for consideration in the 2005 World of Coal Ash, April 11-15, 2005, Lexington, Kentucky, USA