

Zero Test Emissions Of Sulphur Dioxide From Large Coal Under Staged Fluidized Bed Combustion

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KLUWER ACADEMIC PUBL, WATER AIR AND SOIL POLLUTION; pp: 291-300; Vol: 96

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Summary

This paper reports the emissions of SO₂ from large coal under staged combustion without any additive. A stainless steel combustor, 2 m high and 0.3 x 0.3 m in cross section was used. Fluidizing air was supplied through a multihole distributor. An adjustable secondary air injector was used along the vertical axis of the combustor to introduce secondary air in the freeboard. From 0-40% of total air was injected in the freeboard above the bed. The experiments were carried out at fluidizing velocities of 1-2 m s⁻¹, bed temperatures of 1103-1153 degrees K, 20-40% excess air, and bed particle sizes of 665 μ m. Bed temperature and level of air staging had the most significant effect on SO₂ emissions.

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