

RESEARCH PAPERS

采用数值模拟方法研究同时氧化烟气中NO和SO<sub>2</sub>的可行性添加剂

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**摘要** Mechanism analysis on simultaneous oxidation of NO and SO<sub>2</sub> with additives was presented and numerical simulation was developed to investigate the performances of three additives on oxidation of NO and SO<sub>2</sub>. The simulation result showed that reaction temperature, residence time, additive dose and NO concentration influence the oxidation process significantly. There exists an optimum reaction condition for each additive. n-C<sub>4</sub>H<sub>10</sub> has the strongest ability to oxidize NO and SO<sub>2</sub>.

**关键词** [additive](#) [NO](#) [SO<sub>2</sub>](#) [oxidation](#) [flue gas](#)

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**Investigation on Promising Additives for Simultaneous Oxidation of NO and SO<sub>2</sub> in Flue Gas by Numerical Simulation**

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**Abstract** Mechanism analysis on simultaneous oxidation of NO and SO<sub>2</sub> with additives was presented and numerical simulation was developed to investigate the performances of three additives on oxidation of NO and SO<sub>2</sub>. The simulation result showed that reaction temperature, residence time, additive dose and NO concentration influence the oxidation process significantly. There exists an optimum reaction condition for each additive. n-C<sub>4</sub>H<sub>10</sub> has the strongest ability to oxidize NO and SO<sub>2</sub>.

**Key words** [additive](#); [NO](#); [SO<sub>2</sub>](#); [oxidation](#); [flue gas](#)

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