

عنوان مقاله:

Simulating an incinerator and study of effective parameters in reducing Nitrogen Oxide through SNCR method

محل انتشار:

دومین کنفرانس سراسری توسعه محوری مهندسی عمران ، معماری ، برق و مکانیک ایران (سال: 1394)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Nitrogen Oxide pollutants are serious threat of environment and health of human being. Selective Non Catalytic Reduction(SNCR) method is one of Nitrogen Oxide reduction methods which its advantages are low cost, catalyst free, ease of installation and applicability to all types of stationary fired equipment. In this research, a municipal waste incinerator of Daejeon city in South Korea is simulated and its predicted temperature field is validated by experimental data. In other simulation, combustion of the same incinerator with Tehran waste quality and 40%, 80% and 120% excess air modeled and reduction efficiency of SNCR method with applying 18% ammonia solution as reagent studied. Effect of different parameters on Nitrogen Oxide reduction efficiency and suitable locations for injection of ammonia solution studied. Results show that reduction of output Nitrogen Oxide of incinerator strongly depends on injection location temperature, reagent mass flow and droplet size

کلمات کلیدی:

Municipal incinerator, Nitrogen Oxide, SNCR process, injection location, droplet

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