Development of Microwave Technology for Promoting Environmental Quality

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Abstract

Microwave technology has been under development for various industrial applications including Destruction and/or Recovery of Hazardous VOC, Removal of SO_2 and NO_x from Combustion Flue Gas, Removal of Pollutants from Diesel Engine Exhaust, Remediation of Contaminated Soil, and Enhancement of Wet Air Oxidation Process. In this presentation, the background of microwave technology will be introduced, the microwave induced chemical reactions will be described, and several microwave application results will be presented. The technology has been found to have great potential for solving many of today's environmental problems, including the control of SO_x, NO_x and metal emissions from various combustion facilities.