Abstract:
This paper presents the results of a controlled acoustic excitation of a liquid fueled non-premixed flame as a means of nitric oxide reduction. The experimental burner is a domestic hot-water heater provided by Viessmann. An actuator is located on the air duct and comprises two perforated plates. By changing the speed of rotation of the rotor it is possible to achieve a single frequency excitation of the burner cavity. The industrial version of the burner already features low NO exhaust levels (82 ppm at 0