

ABSTRACT

Provided is a combustion system in which a catalyst having superior denitration efficiency at a low temperature compared with those used in the conventional techniques is used in a selective catalytic reduction reaction using ammonia as a reducing agent. A combustion system equipped with: a combustion device for combusting a fuel; an exhaust passage through which an exhaust gas generated as the result of the combustion of the fuel in the combustion device can pass; a dust collection device which is arranged in the exhaust passage and can collect soot and dust in the exhaust gas; and a denitration device which is arranged in the exhaust passage and can remove a nitrogen oxide from the exhaust gas with a denitration catalyst. In the combustion system, the denitration device is arranged on the downstream side of the dust collection device in the exhaust passage, and the denitration catalyst is one which contains vanadium oxide as the main component and in which the content of a second metal in terms of oxide content is 1 to 40 wt% inclusive, wherein the second metal comprises at least one metal element selected from the group consisting of Co, W, Mo, Nb, Ce, Sn, Ni, Fe, Cu, Zn and Mn.