Abstract

A method for fabricating a semiconductor integrated circuit device of the invention comprises feeding oxidation species containing a low concentration of water, which is generated from hydrogen and oxygen by the catalytic action, to the main surface of or in the vicinity of a semiconductor wafer, and forming a thin oxide film serving as a gate insulating film of an MOS transistor and having a thickness of 5 nm or below on the main surface of the semiconductor wafer at an oxide film-growing rate sufficient to ensure fidelity in formation of an oxide film and uniformity in thickness of the oxide film.