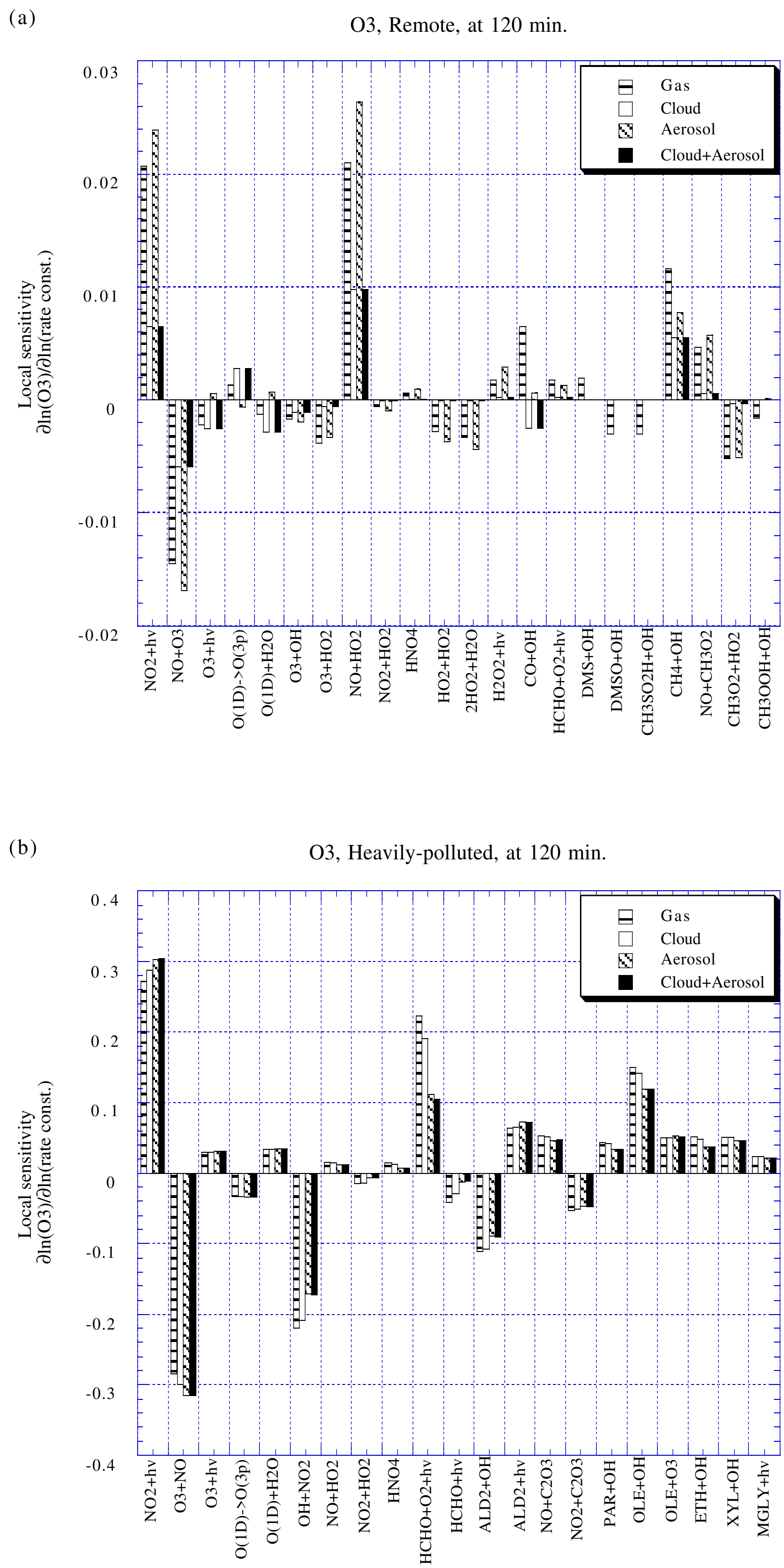

Figure 4. The instantaneous sensitivities of O_3 at the end of the 2-hr simulation to gas-phase reaction rate constants under (a) the Remote and (b) the Heavily-polluted conditions. Gas, Cloud, Aerosol, and Cloud+Aerosol represent clear air with only gas-phase reactions included, gas+aerosol with gas-phase and aerosol surface reactions included, gas+cloud with gas- and aqueous-phase reactions included, and gas+cloud+aerosol with all reactions included, respectively.

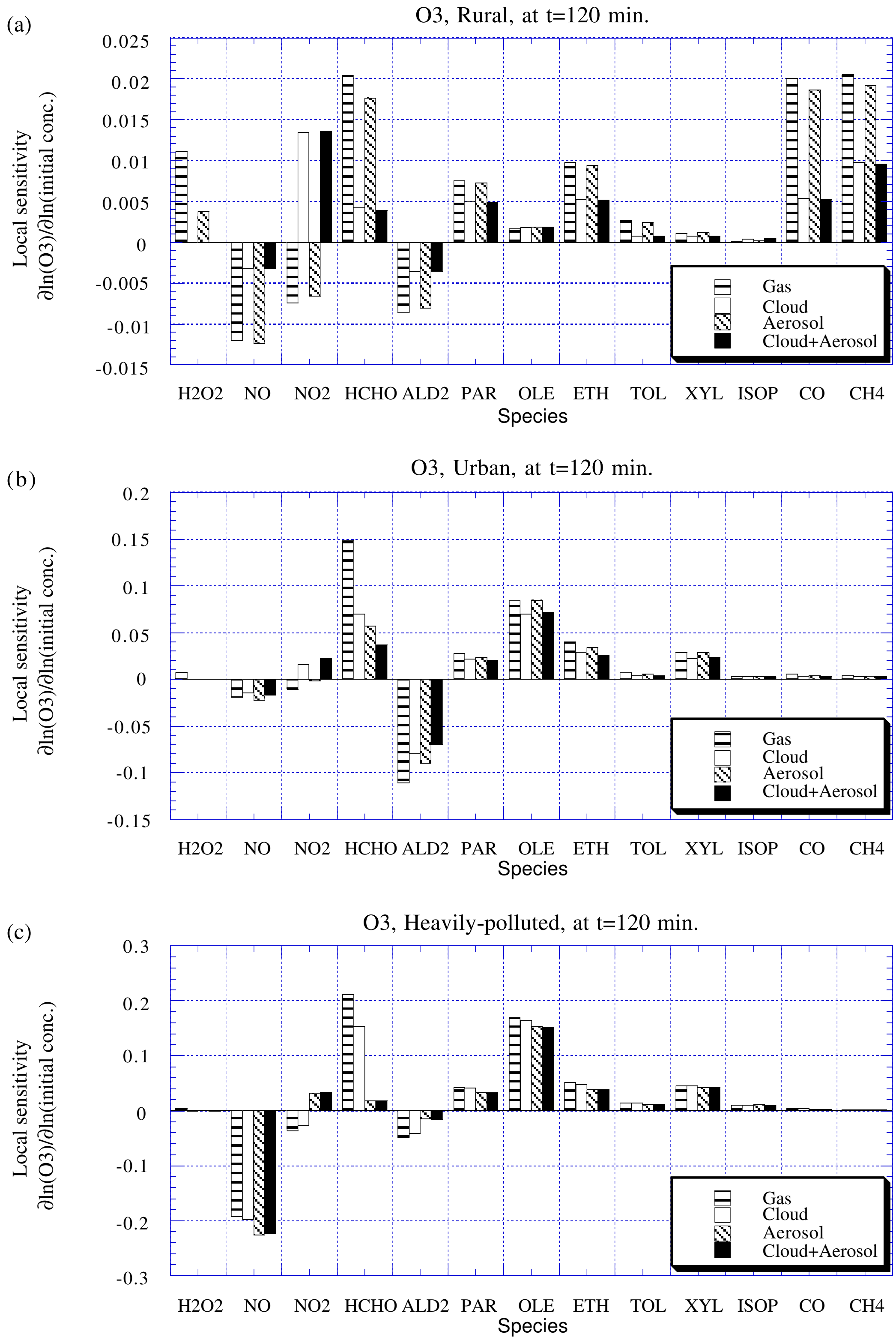

Figure 5. The instantaneous sensitivities of O_3 at the end of the 2-hr simulation to species initial concentrations under (a) the Rural, (b) the Urban and (c) The Heavily-polluted conditions. Gas, Cloud, Aerosol, and Cloud+Aerosol represent clear air with only gas-phase reactions included, gas+aerosol with gas-phase and aerosol surface reactions included, gas+cloud with gas- and aqueous-phase reactions included, and gas+cloud+aerosol with all reactions included, respectively.

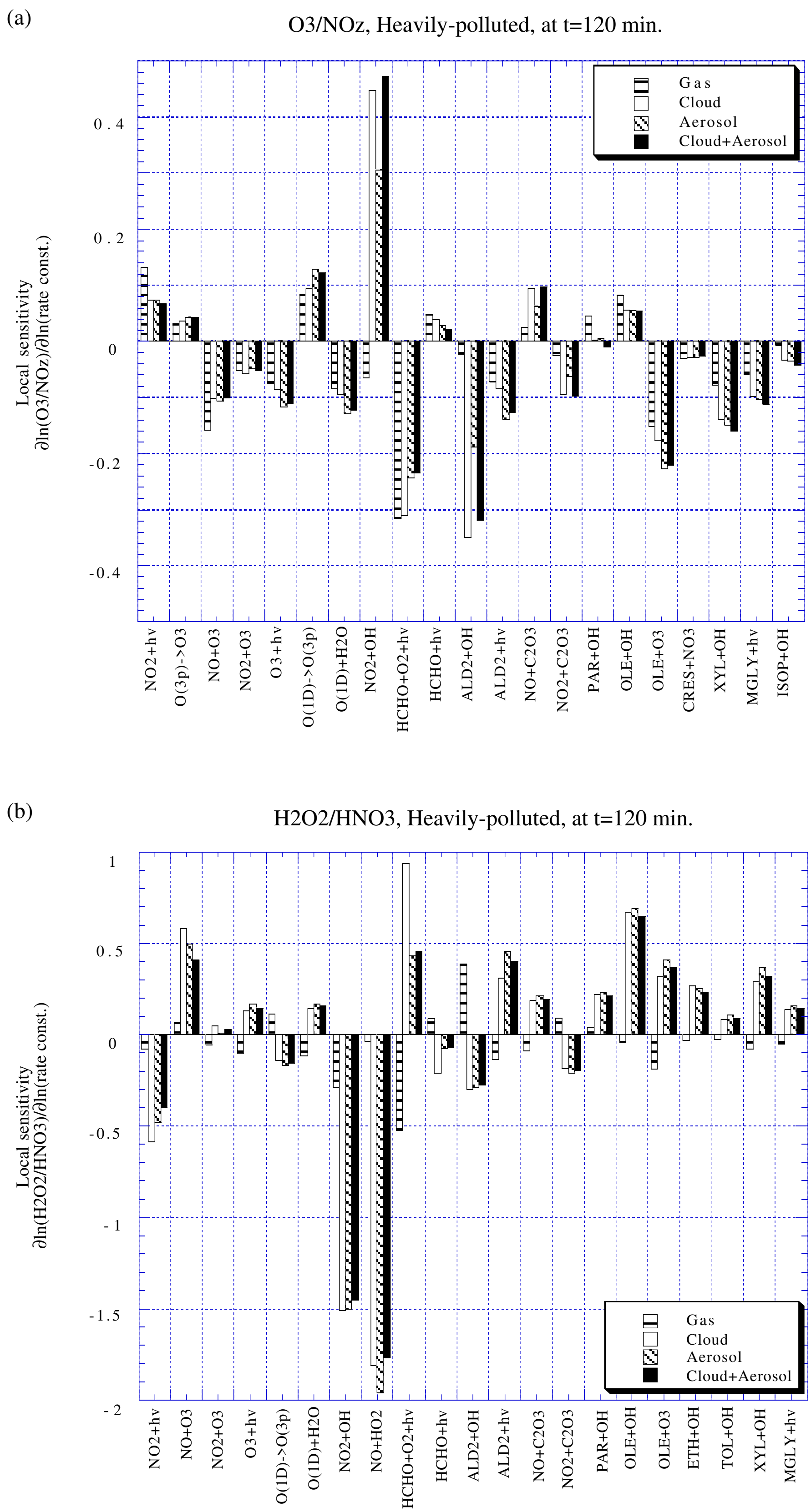

Figure 6. The instantaneous sensitivities of (a) O_3/NO_z and (b) H_2O_2/HNO_3 at the end of the 2-hr simulation to gas-phase reaction rate constants under the Heavily-polluted conditions. Gas, Cloud, Aerosol, and Cloud+Aerosol represent clear air with only gas-phase reactions included, gas+aerosol with gas-phase and aerosol surface reactions included, gas+cloud with gas- and aqueous-phase reactions included, and gas+cloud+aerosol with all reactions included, respectively.

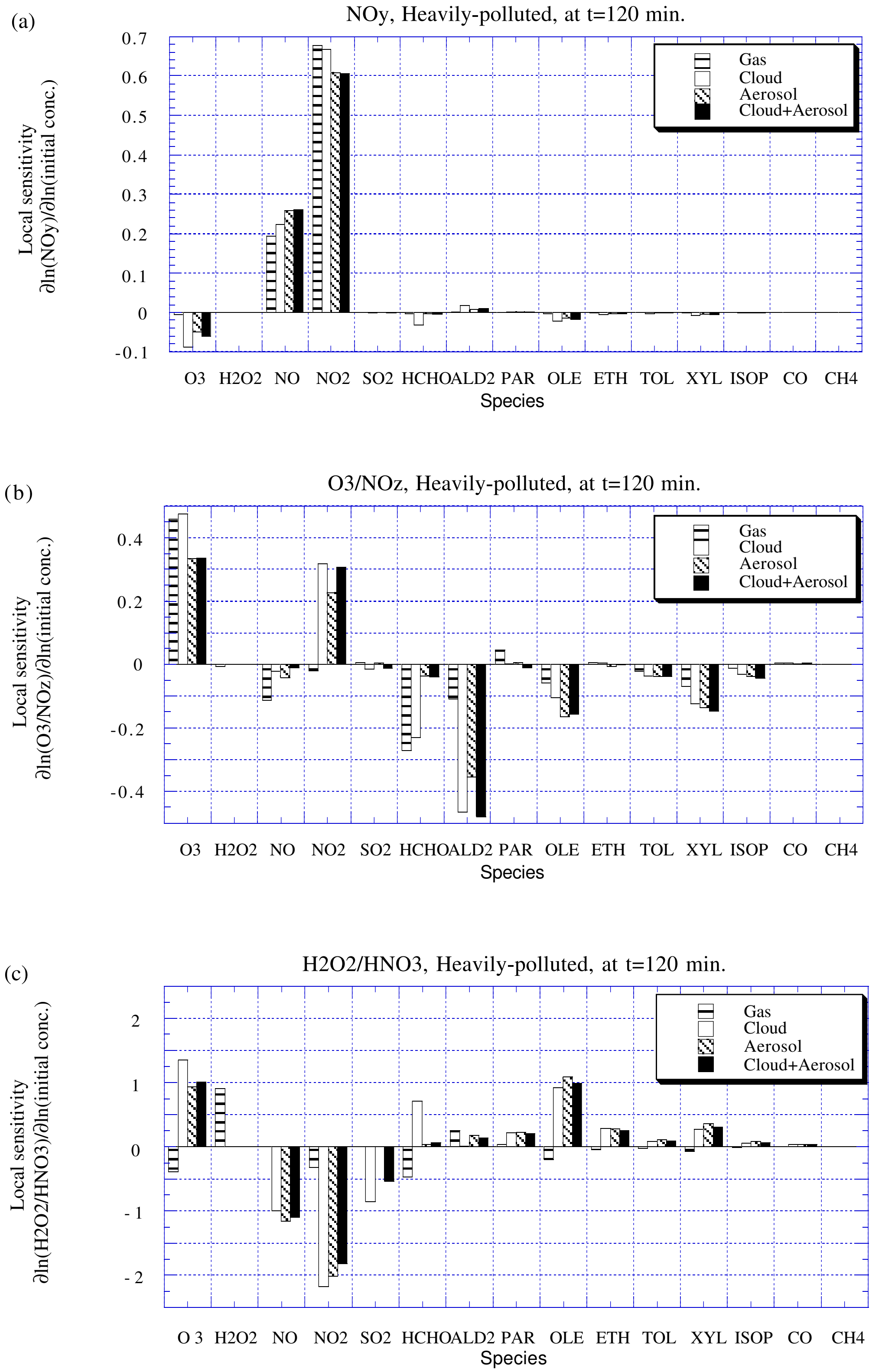

Figure 7. The instantaneous sensitivities of (a) NO_y, (b) O_3/NO_z and (c) H_2O_2/HNO_3 at the end of the 2-hr simulation to the initial species concentrations under the Heavily-polluted conditions. Gas, Cloud, Aerosol, and Cloud+Aerosol represent clear air with only gas-phase reactions included, gas+aerosol with gas-phase and aerosol surface reactions included, gas+cloud with gas- and aqueous-phase reactions included, and gas+cloud+aerosol with all reactions included, respectively.