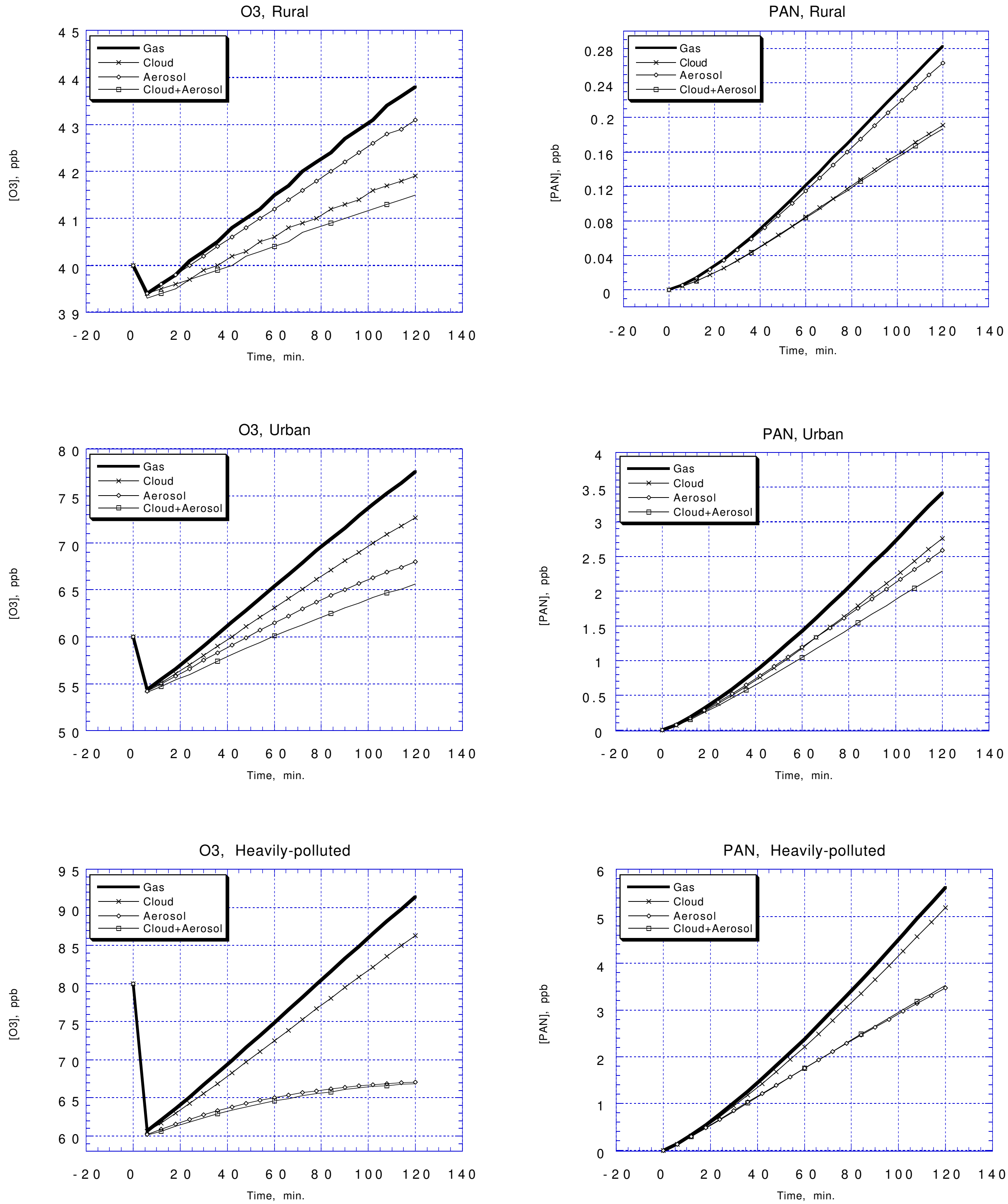
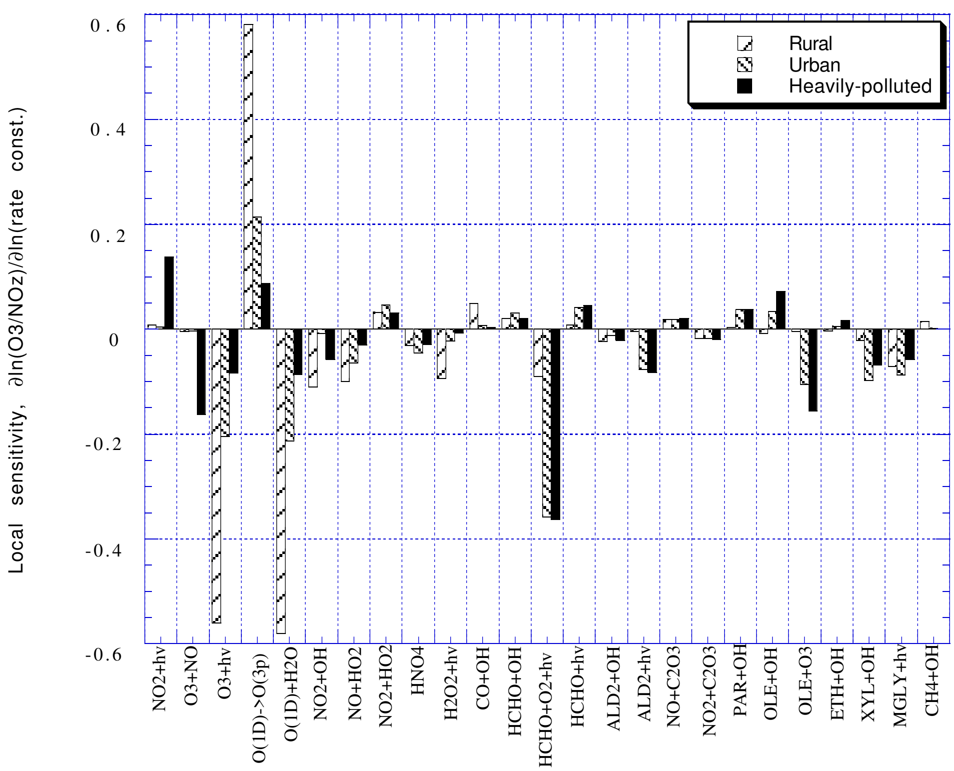


Figure 1. The concentrations of O_3 and PAN as a function of time under the Rural, the Urban and the Heavily-polluted conditions. All simulations began at local noon and were run for 2 hours. Gas, Cloud, Aerosol, and Cloud+Aerosol represent clear air with only gas-phase reactions included, gas+aerosol 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.

(a)



(b)

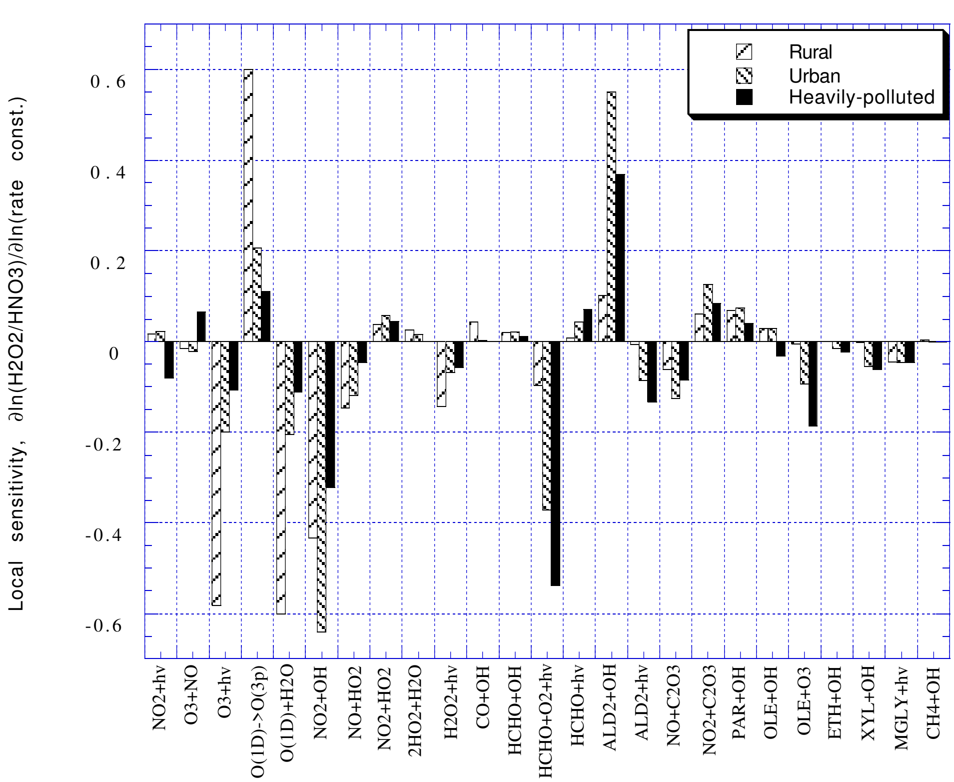


Figure 2. The average sensitivities of (a) O_3/NO_z and (b) H_2O_2/HNO_3 during the last hour simulation with respect to gas-phase reaction rate constants under the Rural, the Urban and the Heavily-polluted conditions.