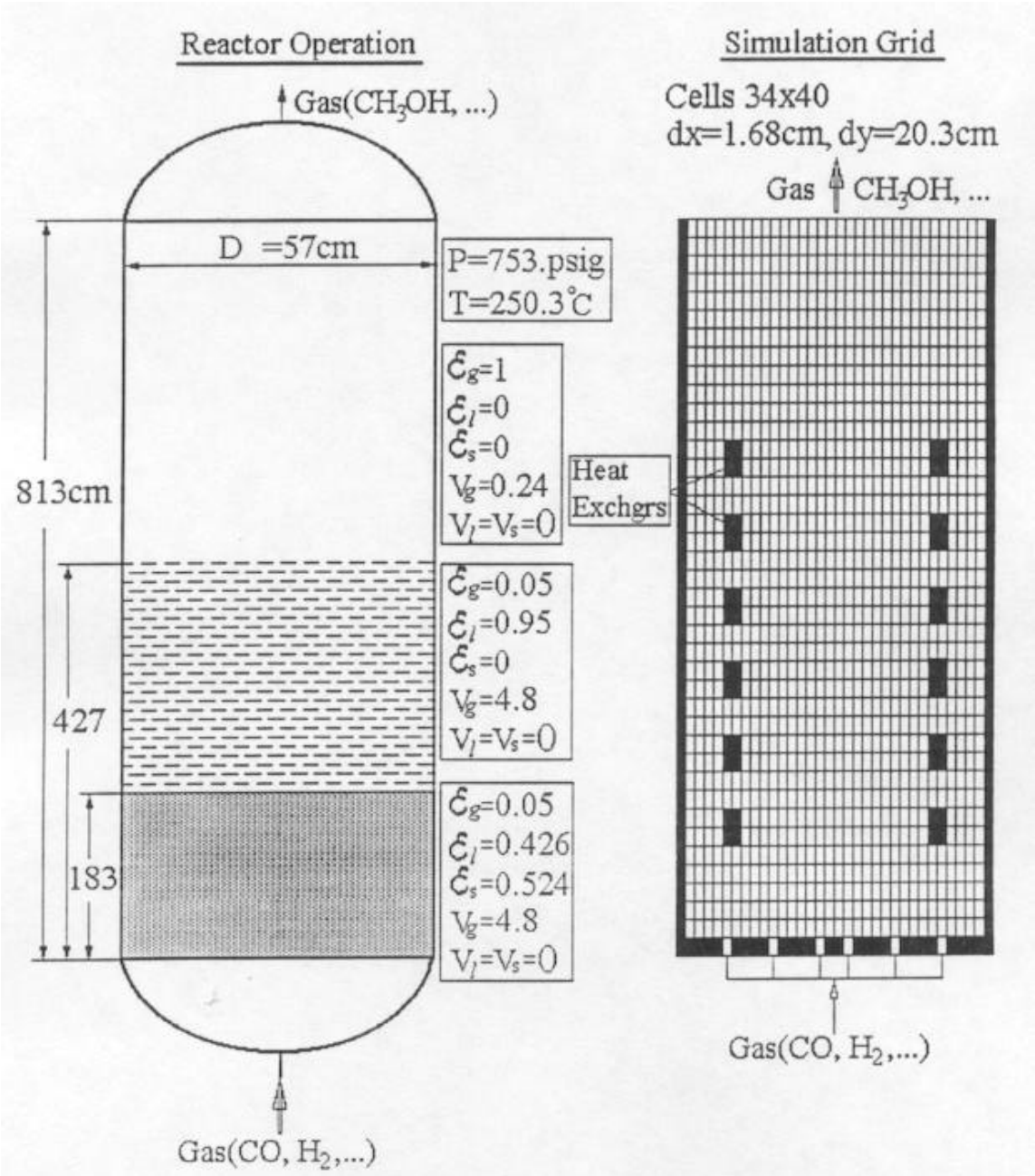

Figure 1 Reactor Operation Condition and Simulation Grid.

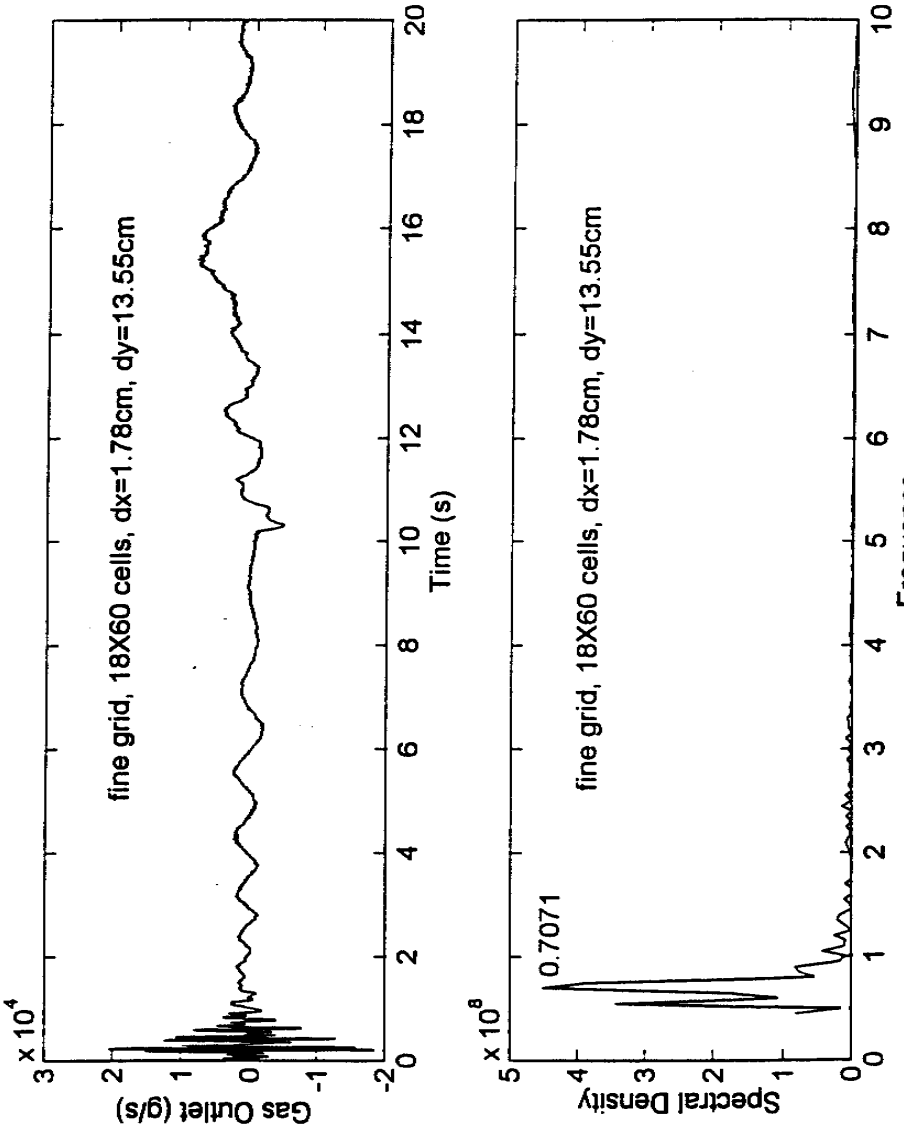

Figure 2 Gas Flowrate at Reactor Top and Frequency Response (Fine Grid).

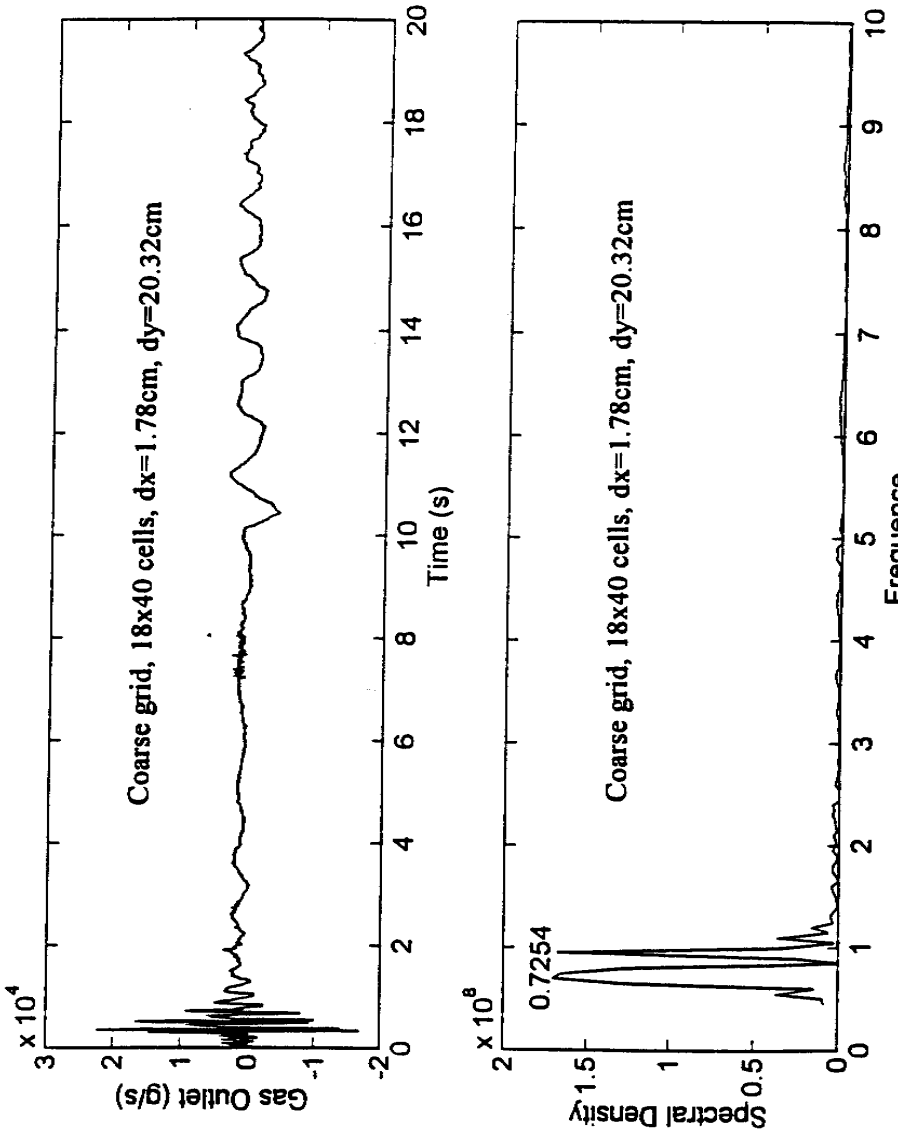

Figure 3 Gas Flowrate at Reactor Top and Frequency Response (Coarse Grid).

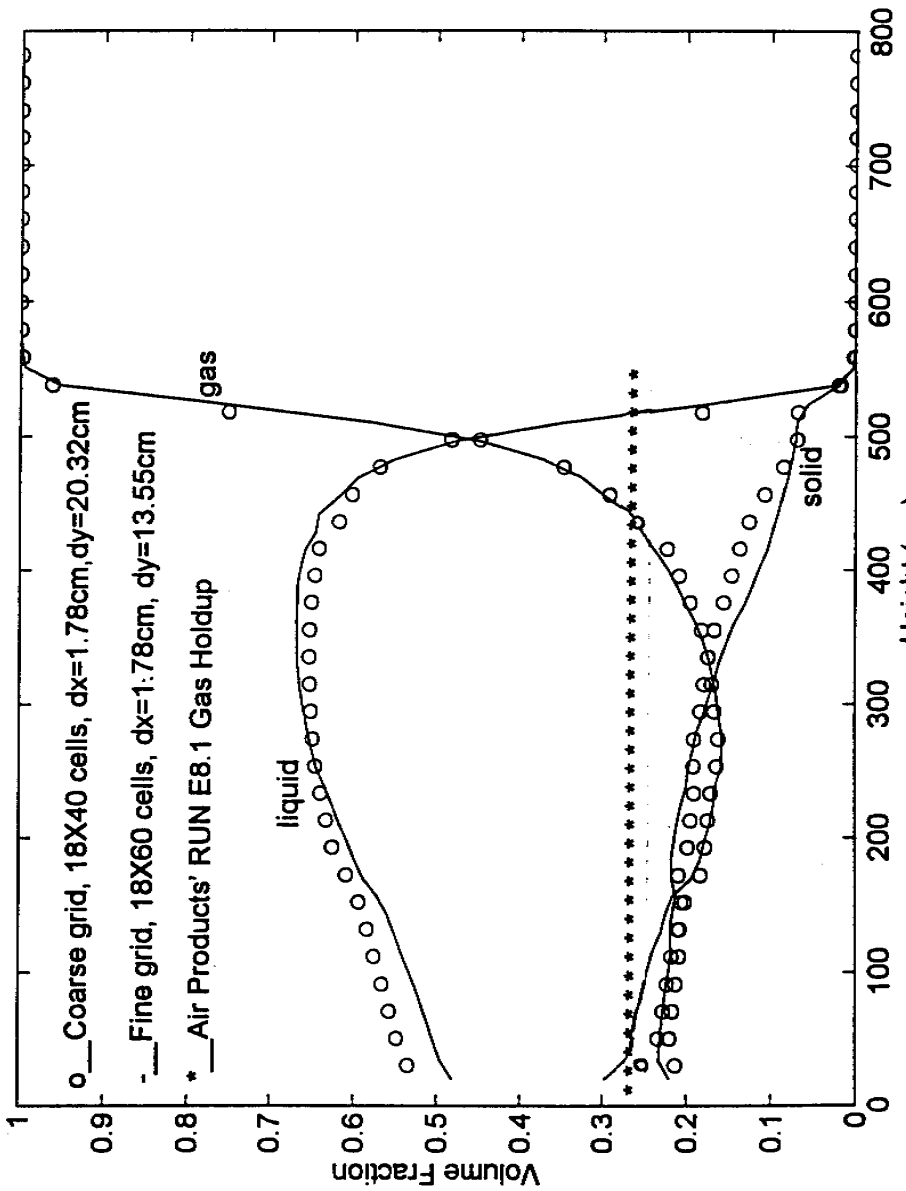

Figure 4 Time Averaged G-L-S Volume Fraction Profiles.

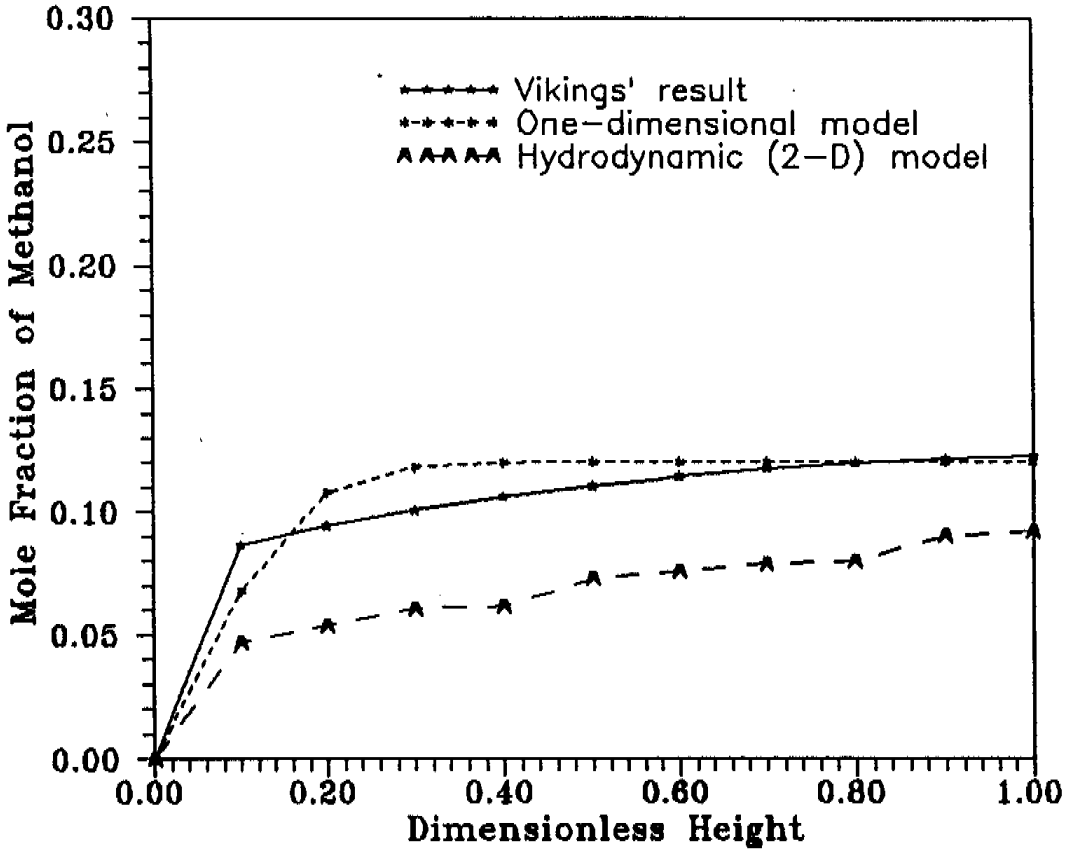

Figure 5 Methanol Concentration Profiles for IIT's Hydrodynamic, One-dimensional and Vikings' (1993) Models.

Figure 6 Instant Rate of Reaction foe Methanol Production (gmol/s/cm^3).

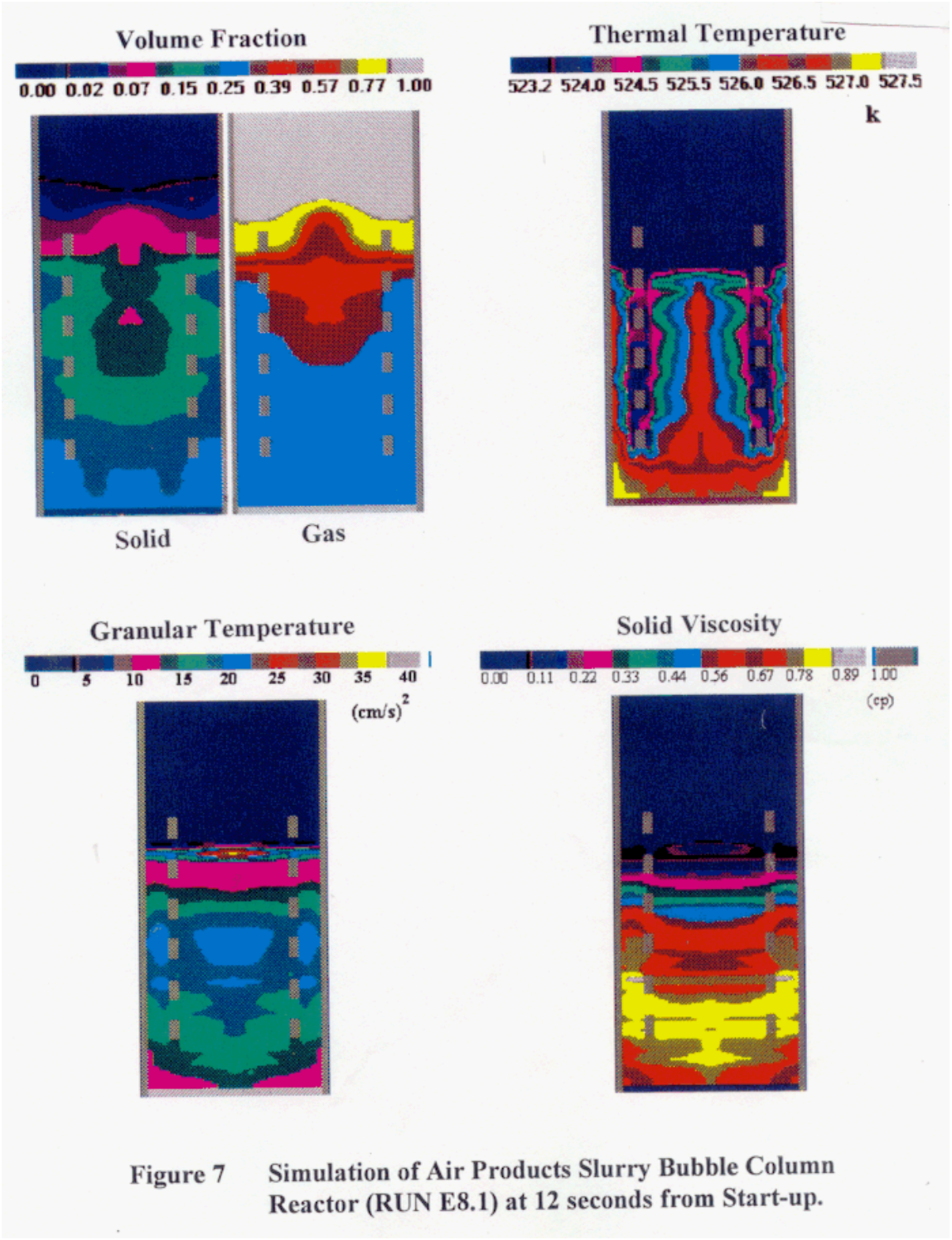

Figure 7 Simulation of Air Products Slurry Bubble Column Reactor (RUN E8.1) at 12 seconds from Start-up.

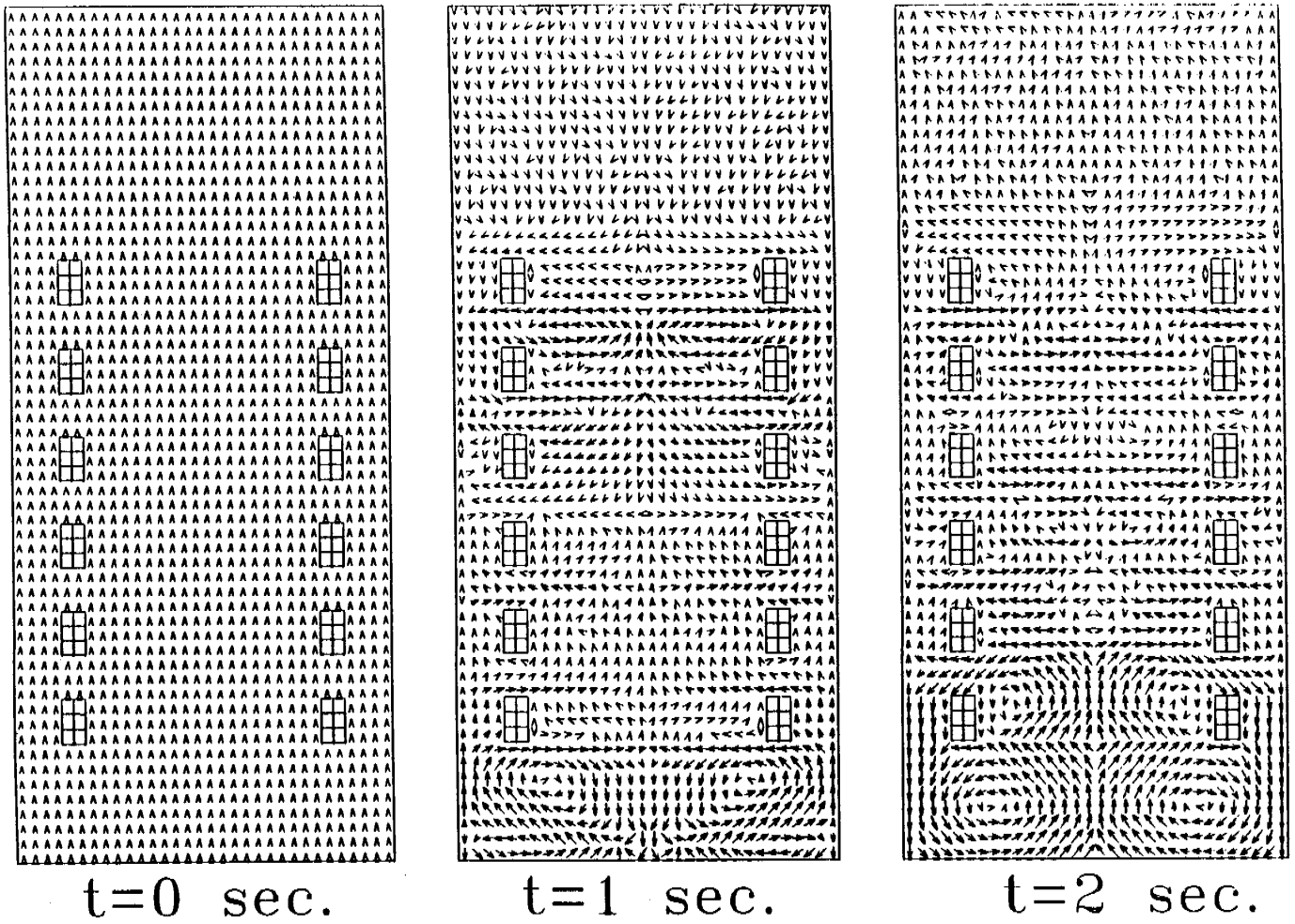

Figure 8a Gas Flow Patterns (Fine Grid).

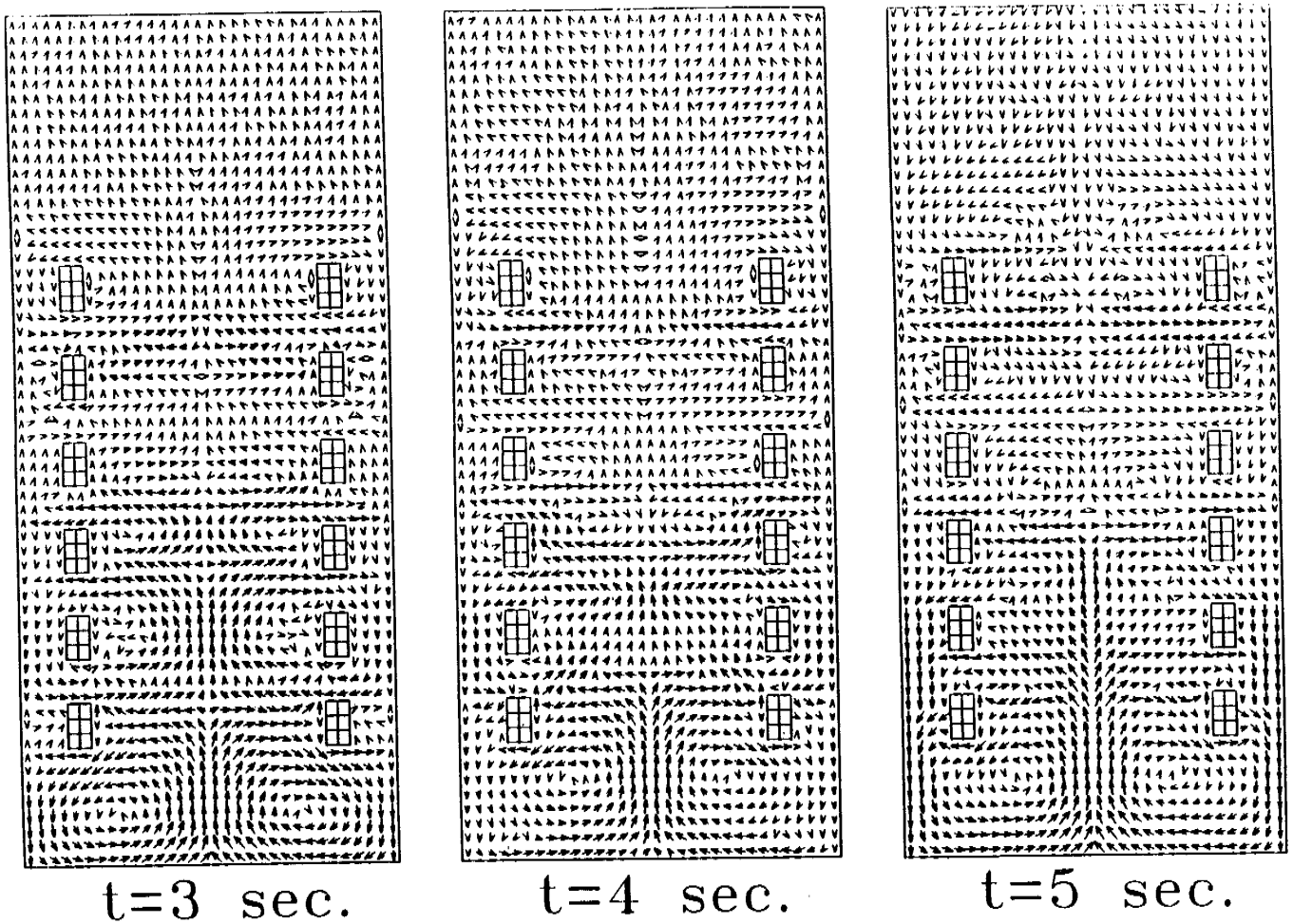

Figure 8b Gas Flow Patterns (Fine Grid).

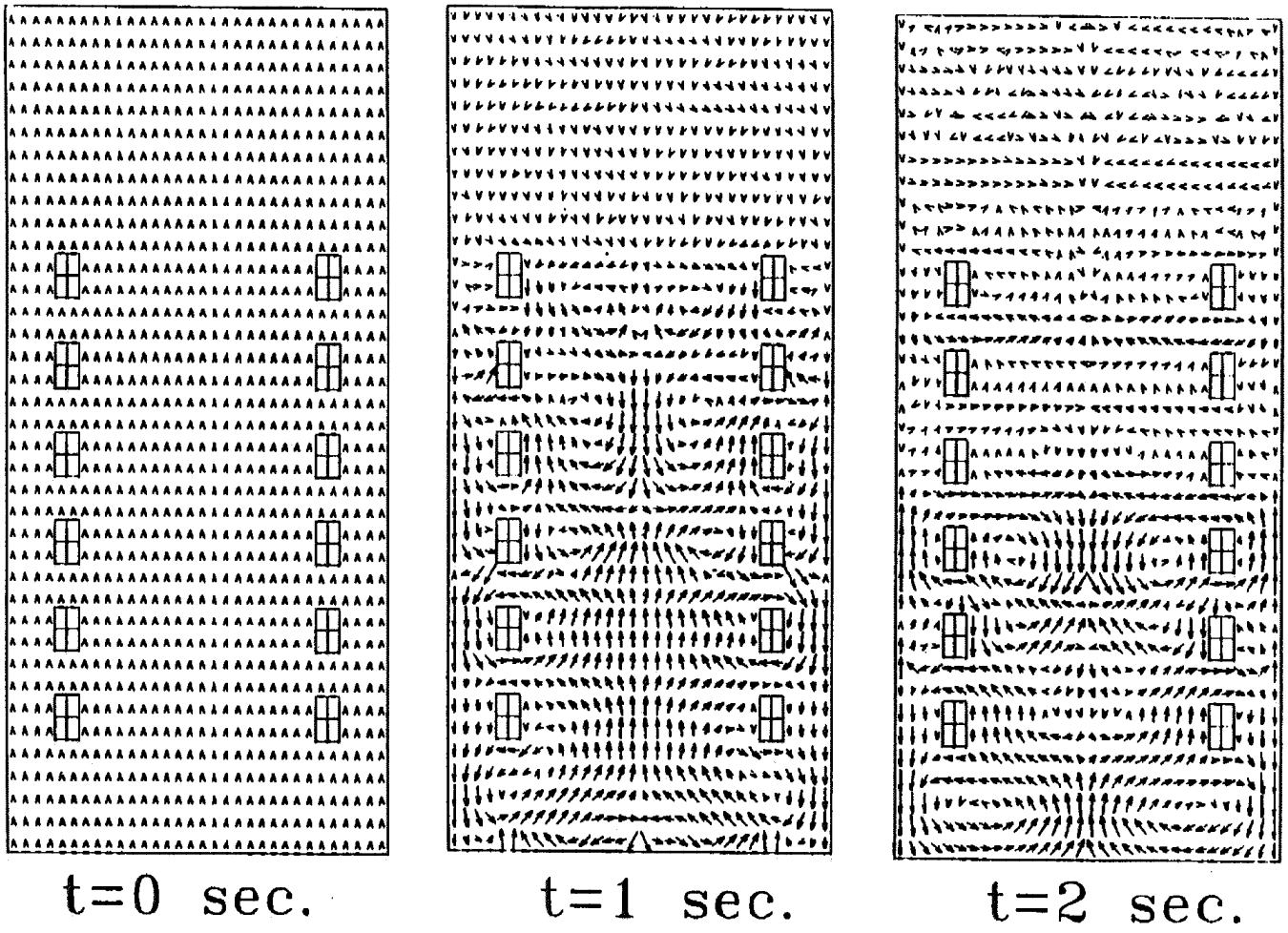

Figure 9a Gas Flow Patterns (Coarse Grid).

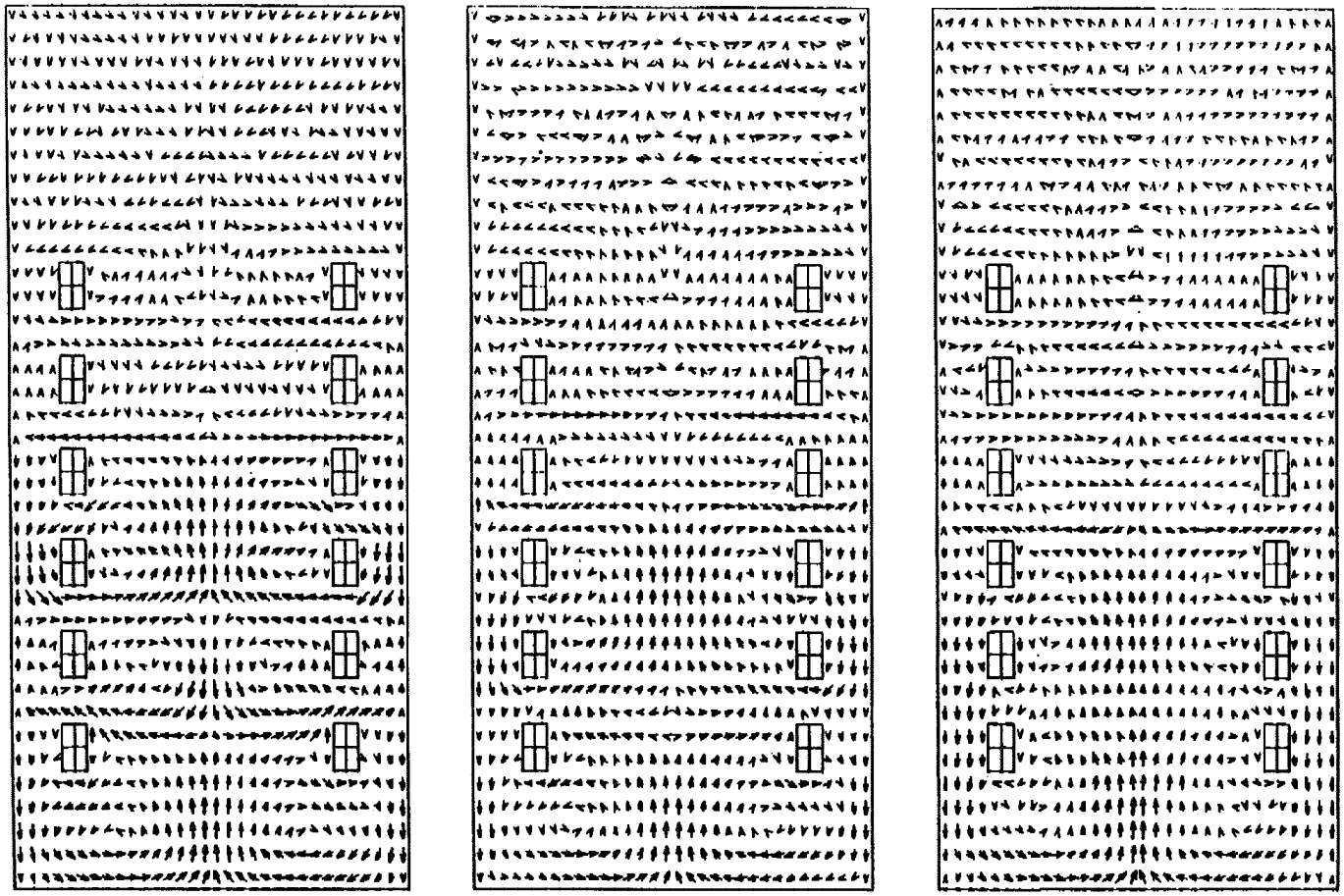

Figure 9b Gas Flow Patterns (Coarse Grid).