## Measurement of coulomb stresses

Modeling of dense flow of FCC catalyst (e.g. Patureaux and Barthod, 2000) requires the knowledge of stresses. Existing kinetic theory can predict these stresses down to minimum fluidization velocity. But for dense flow, such as may occur in standpipe and J valves, coulomb stresses are needed. Although there is some theory in the M-FIX code, there is no experimental verification of such theories. A sample measurement of density concentration profiles in standpipes of FCC units will probably produce the badly needed coulomb stresses.