Pyroclastic Surges and Blasts

Characteristics

- Low density
- Low concentration
- Poor topographic constraint
- Turbulent (high flow regime)
- Shorter runout than flows

Transport Process

- Transport system
  - Dilute upper part
  - Sedimentation by diffusion law
- Sedimentation system
  - Denser lower part
  - Interaction with the ground surface

Bedforms

- Sandwaves
  - Dunes, antidunes, cross stratification
- Massive
  - No structures, lensoid form
- Planar
  - Inversely graded, coarser clasts
Other Features

- Channels
- Ripples
- Mud cracks
- Accretionary lapilli
- Soft sediment deformation
- Bedding sags
Emplacement model

- Particle spacing
  - Traction, saltation, suspension
- Grain size modes
- Markov model of stratigraphy
- Deflation model of transport