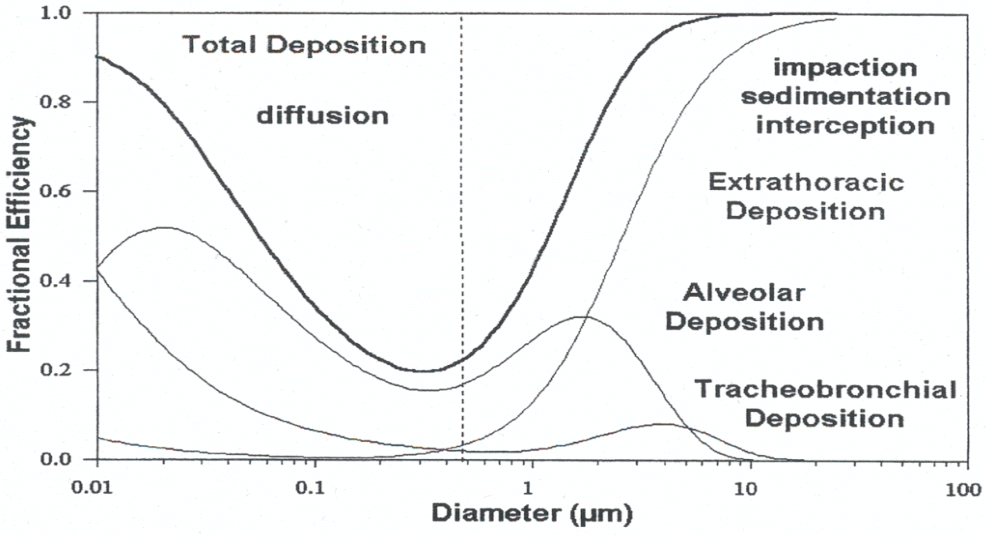
BACKGROUND

- THE MODEL DISTINGUISHES FIVE ANATOMICAL REGIONS:
  - NASAL REGION
  - EXTRATHORACIC REGION DURING MOUTH BREATHING
  - TRACHEOBRONCHIAL AIRWAY
  - BRONCHIOLAR AIRWAY
  - ALVEOLAR REGION

DEPOSITION MECHANISMS

- NOSE, EXTRATHORACIC AND TRACHEO-BRONCHIAL REGIONS
  - INERTIAL IMPACTION AND BROWNIAN DIFFUSION
- TRACHEOBRONCHIAL AIRWAY
  - SEDIMENTATION AND BROWNIAN DIFFUSION
- ALVEOLAR REGION
  - GRAVITATIONAL SETTLING AND BROWNIAN DIFFUSION.

DEPOSITION IN HUMAN RESPIRATORY TRACT AS A FUNCTION PARTICLE DIAMETER



Nasal Breathing and Selected Parameters: Q = 500 cm^3s^{-1}; V = 1500 cm^3; FRC = 3300 cm^3 and f = 10

- **LOG NORMAL CURVES WERE FITTED TO NORMALIZED COUNT DISTRIBUTIONS DETECTED BY SMPS.**
- **MASS MEDIAN DIAMETERS (MMD) OF MASS DISTRIBUTIONS WERE CALCULATED FROM COUNT MEDIAN DIAMTERS AND GEOMETRIC STANDARD DEVIATIONS OF CORRESPONDING NUMBER DISTRIBUTIONS USING HATCH-CHOATE EQUATION.**
- **PARTICLE MASS WAS ESTIMATED ON THE BASIS OF AN ASSUMED PARTICLE DENSITY OF 1 g/cm^3.**