CONTENT

SECTI	ON I: BASIC CONCEPTS OF AEROSOL GENERATION AND CHARACTERIZATI	ON
AND T	THEIR HEALTH EFFECTS	1
1.	Aerosol General concepts and Parameters	3
2.	Aerosol Sampling and Characterization for Inhalation Exposure Studies with Experime	
	Animals	31
3.	Inhalation of Aerosols : Particle Deposition and Retention	65
4.	Dissolution of Inhaled Aerosols	105
5.	Response of the Respiratory Tract to Inhaled Pollutants	125
6.	Particle Charge Effects	141
7.	Deliquescence Properties and Particle Size Change of Hygroscopic Aerosols	153
SECTI	ON II : METHODS OF AEROSOL GENERATION AND CHARACTERIZATION	169
8.	Dry-Dispersion Aerosol Generators	171
9.	Experimental Study on the Dispersion of Fine Particles into Air	189
10.	Size-Related Chemical and Physical Properties of Power Plant Fly Ash	203
11.	Generation and Characterization of Power Plant Fly Ash	215
12.	Physical and Chemical Characteristics of Airborne Fibers	235
13.	Fiber Generation and Length Classification	257
14.	Sulfur Compounds in Ambient Environments and Their Simulation in the Laboratory	299
15.	Generation of Submicron Sulfuric Acid Aerosol by Vaporization and ondensation	317
16.	Diesel Exhaust Aerosols	337
17.	Metal-Fume Generation and Its Application to Inhalation Experiments	361
18.	Consumer Product Aerosols : Generation, characterization and Exposure Problems	379
19.	Radioactive Labeling of Aerosols : Generation Methods and Characteristics	399
20.	Particle Size-Ranges Selection by Opposing-Jet Classification	427
SECTI	ON III : EXPOSURE FACILITIES	441
21.	Aerosol Exposure Methods	443
22.	Airflow and aerosol Distribution in Animal Exposure Facilities	459
23.	Design, Operation and Dynamics of Aerosol Exposure Facilities for Human Subjects	475
24.	Computer-Controlled Human Exposure Facilities Utilizing Water-Soluble Aerosols	493
25.	Horizontal Airflow Inhalation Exposure Chamber	517
26.	Animal Exposure Facility for Diesel Exhaust Studies	525
27.	Particulate and Vapor Contamination in Experiments with Carcinogens	541
28.	Particle Deposition in Model Systems of Human and Experimental Animal Airways	553
Author	Index	577

Subject Index

593