

1. Record Nr.	UNINA9911006841303321
Titolo	Instrumentation for fluid-particle flow // edited by Shao Lee Soo
Pubbl/distr/stampa	Park Ridge, N.J., : Noyes Publications Norwich, N.Y., : William Andrew Pub., c1999
ISBN	1-59124-264-9
Descrizione fisica	1 online resource (431 p.)
Collana	Particle technology series
Altri autori (Persone)	SooS. L <1922-> (Shao-lee)
Disciplina	621.381046 681/.28 21
Soggetti	Fluid dynamic measurements Flow meters Particles - Measurement Measuring instruments
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Instrumentation for Fluid - Particle Flow; Copyright Page; Contents; CHAPTER 1. INTRODUCTION; 1.1 AVERAGES AND AVERAGING; 1.2 EFFECT OF PROBE DIMENSION; 1.3 EFFECT OF MEASURING VOLUME; 1.4 REFERENCES; CHAPTER 2. ISOKINETIC SAMPLING AND CASCADE SAMPLERS; 2.1 INTRODUCTION; 2.2 ISOKINETIC SAMPLING; 2.3 CASCADE IMPACTOR; 2.4 NOTATIONS; 2.5 REFERENCES; CHAPTER 3. ELECTRICAL MEASUREMENTS; 3.1 INTRODUCTION; 3.2 ORIGIN OF CHARGE; 3.3 FUNDAMENTAL MEASUREMENTS; 3.4 PROBES AND SENSORS; 3.5 INSTRUMENTATION; 3.6 OTHER MEASUREMENTS; 3.5 NOTATIONS; CHAPTER 4. FIBER OPTICS; 4.1 INTRODUCTION 4.2 MEASUREMENT OF LOCAL CONCENTRATION OF SOLIDS 4.3 MEASUREMENT OF LOCAL PARTICLE VELOCITY; 4.4 NOTATIONS; 4.5 REFERENCES; CHAPTER 5. INSTRUMENTATION FOR FLUID/PARTICLE FLOW: ACOUSTICS; 5.1 INTRODUCTION; 5.2 PRINCIPLES OF ACOUSTIC FLOW-MEASUREMENT TECHNIQUES; 5.3 MEASUREMENT OF SOLID/LIQUID FLOW; 5.4 MEASUREMENT OF SOLID/GAS FLOW; 5.5 MEASUREMENT OF LIQUID VISCOSITY/DENSITY; 5.6 SUMMARY AND FUTURE DEVELOPMENT; 5.7 NOTATION; 5.8 REFERENCES; CHAPTER 6.

INSTRUMENTATION FOR FLUID-PARTICLE FLOW: ELECTROMAGNETICS;  
6.1 INTRODUCTION; 6.2 MEASUREMENT PRINCIPLES; 6.3  
MEASUREMENT OF SOLID/LIQUID FLOW  
6.4 MEASUREMENT OF SOLID/GAS FLOW6.5 FUTURE FLOW  
INSTRUMENTS; 6.6 NOTATION; 6.7 REFERENCES; CHAPTER 7. SINGLE-  
POINT LASER MEASUREMENTS; 7.1 INTRODUCTION; 7.2 LASER-DOPPLER  
ANEMOMETRY; 7.3 PHASE-DOPPLER ANEMOMETRY; 7.4 SIGNAL  
PROCESSING; 7.4 RECAP AND FUTURE DIRECTIONS; 7.5 REFERENCES;  
CHAPTER 8. FULL FIELD, TIME RESOLVED, VECTOR MEASUREMENTS; 8.1  
INTRODUCTION; 8.2 PARTICLE TRACKING VELOCIMETRY (PTV); 8.3  
OTHER TECHNIQUES; 8.4 ACKNOWLEDGMENTS; 8.5 REFERENCES;  
CHAPTER 9. RADIOACTIVE TRACER TECHNIQUES; 9.1 INTRODUCTION;  
9.2 PRINCIPLES OF RADIATION DETECTION  
9.3 THE COMPUTER-AIDED PARTICLE-TRACKING FACILITY9.4 SOLIDS  
DYNAMICS IN FLUIDIZED BEDS; 9.5 SOLIDS MIXING AND FLUCTUATION  
IN FLUIDIZED BEDS; 9.6 CONCLUSION; 9.7 NOTATION; 9.8 REFERENCES;  
INDEX

---

Sommario/riassunto

Some of the most original and productive research specialists in the field of particle-fluid flow systems are assembled in this book, which is an important and current reference volume. The book focuses on methods of measurement and options for engineers

---