

1. Record Nr.	UNINA9910141598303321
Titolo	Laser metrology in fluid mechanics [[electronic resource]] : granulometry, temperature and concentration measurements / / edited by Alain Boutier
Pubbl/distr/stampa	Hoboken, N.J., : ISTE Ltd./John Wiley and Sons Inc., 2013
ISBN	1-118-57684-5 1-299-24212-X 1-118-57688-8 1-118-57695-0
Descrizione fisica	1 online resource (348 p.)
Collana	Waves series
Altri autori (Persone)	BoutierA (Alain)
Disciplina	532
Soggetti	Lasers - Industrial applications Laser interferometers Measurement Optical measurements - Industrial applications Fluid mechanics
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	Title Page; Contents; Preface; Introduction; Chapter 1. Basics on Light Scattering by Particles; 1.1. Introduction; 1.2. A brief synopsis of electromagnetic theory; 1.2.1. Maxwell's equations; 1.2.2. Harmonic electromagnetic plane waves; 1.2.3. Optical constants; 1.2.4. Light scattering by a single particle; 1.3. Methods using separation of variables; 1.3.1. Lorenz-Mie (or Mie) theory; 1.3.2. Debye and complex angular momentum theories; 1.4. Rayleigh theory and the discrete dipole approximation; 1.4.1. Rayleigh theory; 1.4.2. Discrete dipole approximation; 1.5. The T-matrix method 1.6. Physical (or wave) optics models1.6.1. Huygens-Fresnel integral; 1.6.2. Fraunhofer diffraction theory for a particle with a circular cross section; 1.6.3. Airy theory of the rainbow; 1.6.4. Marston's physical-optics approximation; 1.7. Geometrical optics; 1.7.1. Calculation of the scattering angle; 1.7.2. Calculation of the intensity of rays; 1.7.3. Calculation of the phase and amplitude of rays; 1.8. Multiple scattering

and Monte Carlo models; 1.8.1. Scattering by an optically diluted particle system; 1.8.2. Multiple scattering; 1.8.3. Monte Carlo method; 1.9. Conclusion

1.10. Bibliography

Chapter 2. Optical Particle Characterization; 2.1. Introduction; 2.2. Particles in flows; 2.2.1. Diameter, shape and concentration; 2.2.2. Statistical representation of particle size data; 2.2.3. Concentrations and fluxes; 2.3. An attempt to classify OPC techniques; 2.3.1. Physical principles and measured quantities; 2.3.2. Nature and procedure to achieve statistics; 2.4. Phase Doppler interferometry (or anemometry); 2.4.1. Principle; 2.4.2. Modeling the phase-diameter relationship; 2.4.3. Experimental setup and typical results; 2.4.4. Conclusion; 2.5. Ellipsometry

2.6. Forward (or "laser") diffraction 2.6.1. Principle; 2.6.2. Modeling and inversion of diffraction patterns; 2.6.3. Typical experimental setup and results; 2.6.4. Conclusion; 2.7. Rainbow and near-critical-angle diffractometry techniques; 2.7.1. Similarities to forward diffraction; 2.7.2. Rainbow diffractometry; 2.7.3. Near-critical-angle diffractometry; 2.8. Classical shadowgraph imaging; 2.8.1. Principle and classical setup; 2.8.2. One-dimensional shadow Doppler technique; 2.8.3. Calculation of particle images using the point spread function; 2.8.4. Conclusion

2.9. Out-of-focus interferometric imaging 2.9.1. Principle; 2.9.2. Modeling the diameter-angular frequency relationship; 2.9.3. Conclusion; 2.10. Holography of particles; 2.10.1. Gabor holography for holographic films; 2.10.2. Inline digital holography; 2.10.3. Conclusion; 2.11. Light extinction spectrometry; 2.11.1. Principle; 2.11.2. Algebraic inverse method; 2.11.3. Experimental setup and conclusion; 2.12. Photon correlation spectroscopy; 2.13. Laser-induced fluorescence and elastic-scattering imaging ratio; 2.13.1. Principle; 2.13.2. Experimental setup and results; 2.13.3. Conclusion

2.14. Laser-induced incandescence

Sommario/riassunto

In fluid mechanics, non-intrusive measurements are fundamental in order to improve knowledge of the behavior and main physical phenomena of flows in order to further validate codes. The principles and characteristics of the different techniques available in laser metrology are described in detail in this book. Velocity, temperature and concentration measurements by spectroscopic techniques based on light scattered by molecules are achieved by different techniques: laser-induced fluorescence, coherent anti-Stokes Raman scattering using lasers and parametric sources, and absorption

2. Record Nr.	UNINA9910854497403321
Autore	Historiae Augustae Colloquium Genevense : <1998>
Titolo	Historiae Augustae Colloquium Genevense / a cura di François Paschoud
Pubbl/distr/stampa	Bari, : Edipuglia, 1999
ISBN	9788872282250
Descrizione fisica	358 p. ; 25 cm
Collana	Historiae Augustae colloquia. Nova series ; 7 Munera ; 13
Disciplina	937.060922
Locazione	FLFBC
Collocazione	937.09 MUNERA 13
Lingua di pubblicazione	Molteplice
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Tenuto nel 1998 In cop.: Centro interuniversitario per gli studi sulla Historia Augusta, Macerata-Perugia.

3. Record Nr.	UNIORUON00077618
Autore	HAUGERUD, Angelique
Titolo	The culture of politics in modern Kenya / Angelique Haugerud
Pubbl/distr/stampa	Cambridge, : Cambridge University, 1995
ISBN	05-214-7059-5
Descrizione fisica	xvi, 266 p. ; 24 cm
Disciplina	320.96762
Soggetti	KENYA - Condizioni economiche e sociali Politica culturale - Kenya
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia