

1. Record Nr.	UNINA9910876788503321
Titolo	Cavity ring-down spectroscopy : techniques and applications // edited by Giel Berden, Richard Engeln
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, 2009
ISBN	1-4441-3082-X 1-4443-0825-4 1-282-25948-2 9786612259487 1-4443-0824-6
Descrizione fisica	1 online resource (346 p.)
Altri autori (Persone)	BerdenGiel EngelnRichard
Disciplina	543.59
Soggetti	Cavity-ringdown spectroscopy Absorption spectra
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	Cavity Ring-Down Spectroscopy: Techniques and Applications; Contents; Preface; Contributors; Glossary; 1 An Introduction to Cavity Ring-Down Spectroscopy; 1.1 Introduction; 1.2 Direct Absorption Spectroscopy; 1.3 Basic Cavity Ring-Down Spectroscopy Set-Up; 1.4 A More Refined Picture; 1.5 Fitting of Cavity Ring-Down Transients; 1.6 A Few Examples; 1.7 Going Beyond the Standard Pulsed CRDS Experiment; 1.8 Summary; References; 2 Cavity Enhanced Techniques Using Continuous Wave Lasers; 2.1 Introduction; 2.2 Properties of Optical Cavities and CW Lasers Relevant to Cavity Enhanced Spectroscopy 2.2.1 Properties of Optical Cavities 2.2.2 Laser Bandwidth, Noise, and Cavity Interactions; 2.3 Experimental Methods for CW Laser Cavity Enhanced Spectroscopy; 2.3.1 CW-Cavity Ring-Down Spectroscopy (CW-CRDS); 2.3.2 Cavity Enhanced Absorption Spectroscopy (CEAS/ICOS); 2.3.3 Phase Shift Cavity Ring-Down Spectroscopy (PSCRDS); 2.4 Spectroscopy with Resonant Cavities; 2.4.1 Frequency Locked CW-CRDS; 2.4.2 Methods for Locking Cavities and Lasers; 2.4.3

Optical Feedback CRDS and CEAS (OF-CRDS/OF-CEAS); 2.4.4 Other Locked-Cavity Techniques; 2.4.5 Optical Heterodyne Cavity Ring-Down Spectroscopy
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5.4 Review of Waveguide CRD Literature

Sommario/riassunto

Cavity Ring-Down Spectroscopy: Techniques and Applications provides a practical overview of this valuable analytical tool, explaining the fundamental concepts and experimental methods, and illustrating important applications. Designed as both an introductory text and a reference source, this book is relevant for scientists unfamiliar with CRDS who are interested in using the technique in their research, as well as experienced users.
