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Titolo	Global and transnational engagements / / edited by Paul Tiyambe Zeleza
Pubbl/distr/stampa	Senegal, : CODESRIA, 2007
ISBN	9786612901584 9781282901582 1282901583 9782869784239 2869784236 9782869783799 2869783795 9782869782938 2869782934
Descrizione fisica	1 online resource (421 p.)
Collana	Codesria book series Study of Africa ; ; v. 2
Altri autori (Persone)	ZelezaTiyambe <1955->
Disciplina	306.096
Soggetti	SOCIAL SCIENCE / Essays Africa History Africa Foreign relations
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	pt. 1. Globalisation studies and African studies -- pt. 2. African studies in regional contexts.
Sommario/riassunto	This is the second of a two-volume work taking stock of the study of Africa in the twenty-first century: its status, research agenda and approaches, and place. It is divided into two parts, the first entitled Globalisation Studies and African Studies, and the second, African Studies in Regional Contexts. Topics addressed in part one include: trans-boundary formations and the study of Africa; global economic liberalisation and development in Africa; African diasporas, academics and the struggle for a global epistemic presence; and the problem of translation in African studies. Part two consider

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Autore	Happer William
Titolo	Optically pumped atoms : alkali-metal vapors for application / / William Happer, Yuan-Yu Jau, and Thad Walker
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ISBN	9786612482694 9781282482692 1282482696 9783527629503 3527629505 9783527629510 3527629513
Descrizione fisica	1 online resource (248 p.)
Classificazione	UH 7600
Altri autori (Persone)	JauYuan-Yu WalkerThad
Disciplina	539.7
Soggetti	Optical pumping Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Optically Pumped Atoms; Contents; Preface; Index to Codes; 1 Introduction; 2 Alkali-Metal Atoms; 2.1 Electronic Energies; 2.2 Valence-Electron Wave Functions; 2.3 Hyperfine Structure; 3 Wave Functions and Schrodinger Space; 3.1 Uncoupled States; 3.1.1 Kronecker Products; 3.1.2 Angular Momentum Matrices; 3.2 Energy States; 3.3 Zero-Field States; 4 Density Matrix and Liouville Space; 4.1 Purity and Entropy; 4.2 Ground State, Excited State, and Optical Coherence; 4.3 Column-Vector and Row-Vector Transforms; 4.3.1 Column-Vector Transforms; 4.3.2 Row-Vector Transforms; 4.3.3 Expectation Values 5.2.6 Amplitude D5.2.7 Energy Basis; 5.3 Spontaneous Emission; 5.4 Electric Dipole Interaction; 5.5 Rotating Coordinate System; 5.6 Net Evolution; 5.6.1 The Amagat Unit of Density; 5.6.2 Normalization; 5.6.3 Notation and Coding; 5.7 Optical Bloch Equations; 5.8 Liouville Space; 5.8.1 Transients; 5.8.2 Steady State; 5.8.3 Steady State Versus

Detuning; 6 Quasi-Steady-State Optical Pumping; 6.1 Ground-State Evolution; 6.2 Excited-State Evolution; 6.3 Collisions; 6.4 Saturation; 6.5 Identities; 6.6 Net Evolution; 6.7 Negligible Stimulated Emission; 6.8 High-Pressure Pumping; 6.8.1 Liouville Space
6.9 Spectral Width of Pumping Light6.9.1 Gaussian Spectral Profiles; 6.9.2 Plasma Dispersion Function; 6.10 Doppler Broadening; 7 Modulation; 7.1 Magnetic Resonance; 7.2 Modulated Light; 7.2.1 High Pressure; 7.2.2 Lower Pressure; 7.2.3 Modulated Optical Pumping Matrices; 7.3 Secular Approximation; 7.4 Attenuation of Modulated Coherence in Passingthrough the Excited State; 7.5 Examples; 7.5.1 Isolated Magnetic Resonances; 7.5.2 Zeeman Magnetic Resonances; 7.5.3 Push-Pull Pumping; 8 Light Propagation; 8.1 Induced Electric Dipole Moment; 8.2 Absorption Cross Section; 8.3 Small Magnetic Fields
8.4 Evolution of a Beam in Space and Time8.5 First-Order Propagation Equation; 8.6 Propagation of Weak Probe Light; 8.7 Faraday Rotation; 8.8 Specific Absorption; 8.9 Fluorescent Light; 9 Radiation Forces; 9.1 Mean Force; 9.2 Forces from Monochromatic Light; 9.3 Forces in Magneto-Optical Traps; 9.3.1 Repump Lasers; 9.4 Pointing Probability; 9.5 Momentum Space; 9.6 Evolution in Spin-Momentum Space; 9.7 Liouville Space; 9.8 Compactification; 9.8.1 Compactified pq Space; 9.8.2 Compactification within a Tile; 9.9 Displays; 9.9.1 Momentum-Space Displays; 9.9.2 Position-Space Displays
9.10 Momentum Diffusion

Sommario/riassunto

Covering the most important knowledge on optical pumping of atoms, this ready reference is backed by numerous examples of modelling computation for optical pumped systems. The authors show for the first time that modern scientific computing software makes it practical to analyze the full, multilevel system of optically pumped atoms. To make the discussion less abstract, the authors have illustrated key points with sections of MATLAB codes. To make most effective use of contemporary mathematical software, it is especially useful to analyze optical pumping situations in the Liouville spa