

1. Record Nr.	UNINA9910783220003321
Autore	Glendenning Norman K
Titolo	Direct nuclear reactions [[electronic resource] /] / Norman K. Glendenning
Pubbl/distr/stampa	River Edge, N.J., : World Scientific Publishing Co., c2004
ISBN	1-281-87211-3 9786611872113 981-256-210-9
Descrizione fisica	xviii, 378 p. : ill
Disciplina	539.7/5
Soggetti	Direct reactions (Nuclear physics) Nuclear reactions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen.
Nota di bibliografia	Includes bibliographical references (p. 365-372) and index.
Nota di contenuto	Introduction: Direct and compound nuclear reactions -- The plane-wave theory -- Scattering theory and general results -- The phenomenological optical potential -- Distorted-wave Born approximation -- Operator formalism -- Calculation of the DWBA amplitude -- Coupled equations and the effective interaction -- Microscopic theory of inelastic nucleon scattering from nuclei -- Core polarization -- Effective interactions and the free nucleon-nucleon force -- Further developments in the theory of inelastic scattering -- Scattering from deformed rotational nuclei -- Calculation of specific components of the optical potential -- Two-nucleon transfer reactions -- Finite-range interaction in transfer reactions -- Higher-order processes in particle transfer reactions -- Heavy-ion reactions -- Polarizability of nuclear wave functions in heavy-ion reactions.