

1. Record Nr.	UNINA9910454416003321
Titolo	Proceedings of the International Workshop Fission Dynamics of Atomic Clusters and Nuclei [[electronic resource]] : Luso, Portugal, 15-19 May 2000 / / edited by Joao da Providencia ... [et al.]
Pubbl/distr/stampa	Singapore ; ; River Edge, NJ, : World Scientific, c2001
ISBN	1-281-95663-5 9786611956639 981-281-112-5
Descrizione fisica	1 online resource (343 p.)
Altri autori (Persone)	ProvidenciaJoao da
Disciplina	539.72114
Soggetti	Nuclear fission Microclusters Nuclear physics Electronic books.
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.
Nota di contenuto	CONTENTS ; Preface ; Fission kills nuclear ropes loops and chains ; Semiclassical calculation of shell effects in deformed nuclei ; 1 Introduction ; 2 Semiclassical explanation of the onset of mass asymmetry ; 3 Inclusion of spin-orbit interaction in POT ; Acknowledgment ; References Coupling of the collective pairing vibrations with the fission mode 1 Introduction ; 2 The model ; 3 Coupling of the pairing vibrations with the fission mode ; 4 Conclusions: ; Acknowledgments ; References ; Fission studies with large detector arrays ; 1 Introduction 2 A new determination of the Ba-Mo yield matrix for 252Cf 3 Cold Binary Spontaneous Fission ; 4 Light Charged Particle Ternary Fission ; 5 Identification of the cold 10Be ternary SF pairs of 252Cf

; 6 Acknowledgment ; References
 Adiabatic and non-adiabatic dynamics of ions in the formation of
 electron excitation widths in metal clusters
 1 Introduction. ; 2 Dynamical jellium model.
 ; 3 Conclusions. ; Acknowledgments ;
 References ; Fission decay of nuclei and the extension of the
 periodic system
 Fission in (the light of) a quark-gluon liquid theory of the nucleons
 1 Introduction ; 2 The baryonic string force in the nuclear
 bag ; 3 Derivation of the baryonic
 string force ; 4 Nuclear liquid systems 5
 ; 5 Phases of nuclear liquid state ; 6
 Conclusion ; Acknowledgments
 References

Sommario/riassunto

In this volume, the main results of the last sixty years of research in nuclear fission are summarized, showing how ideas advanced from the beginning, for nuclei have also found useful applications in the new area of atomic clusters. The present status of the physics of fission is discussed in depth, and perspectives for further research are outlined.

Contents:

- Fission Studies with Large Detector Arrays (J K Hwang et al.)
- Fission, Decay of Nuclei and the Extension of the Periodic System (W Greiner)
- Neutron Halo of Fissile Nuclei (V I Serov et