

1939**Report: Nuclear Physics, Cosmic Rays****Citation:**

"Report: Nuclear Physics, Cosmic Rays", 1939, Wilson Center Digital Archive, British Intelligence <https://wilson-center-digital-archive.dvincitest.com/document/209322>

Summary:

The report delivers a seven-year study on nuclear physics and cosmic rays.

Original Language:

English

Contents:

Original Scan

OFFICE OF MILITARY GOVERNMENT FOR GERMANY (US)
FIELD INFORMATION AGENCY, TECHNICAL

FIAT REVIEW OF PHYSICS

1939 - 1946

Nuclear Physics, Cosmic Rays

by

S. Fluegge and W. Bothe

Tentative Table of Contents

Collaborators:

I.	ELEMENTARY PARTICLES AND FIELD THEORY OF NUCLEAR FORCES (ELEMENTAR-TEILCHEN UND FELDTHEORIE DER KERNKRAEFTE)	
	Classical field theory (Feldtheorie, klassisch)	Bopp
	Quantum field theory (Feldtheorie, quanten-theoretisch)	Bopp
	Beginnings for revision of the present quantum theory (Ansaetze zur Kritik der bestehenden Quantentheorie)	Bopp
	Experimental work (Experimentelle Arbeiten)	Bothe
II.	COSMIC RADIATION (KOSMISCHE ULTRASTRAHLUNG)	
	Experimental work (Experimentelle Arbeiten)	Maier-Leibnitz <u>Regener</u> Steinke
	Theoretical work (Theoretische Arbeiten)	Bagge Molière
III.	APPARATUS AND EXPERIMENTAL METHODS IN NUCLEAR PHYSICS (EXPERIMENTELLE HILFSMITTEL DER KERNPHYSIK)	
	Methods of measurement for ionizing rays - amplifier, counters, cloud chamber (Messverfahren fuer ionisierende Strahlen - Verstaerker, Zaehlrohr, Nebelkammer usw.)	Maier-Leibnitz
	Methods of measurement for neutrons (Messverfahren fuer Neutronen)	Houtermans
	High tension plants (Hochspannungsanlagen)	Kirchner Riezler

Handwritten text, first line, mostly illegible.

Handwritten text, second line, mostly illegible.

Handwritten text, third line, mostly illegible.

Handwritten text, fourth line, mostly illegible.

Handwritten text, fifth line, mostly illegible.

Handwritten text, sixth line, mostly illegible.

11

Handwritten text, seventh line, mostly illegible.

Handwritten text, eighth line, mostly illegible.

Handwritten text, ninth line, mostly illegible.

Handwritten text, tenth line, mostly illegible.

Handwritten text, eleventh line, mostly illegible.

Handwritten text, twelfth line, mostly illegible.

Handwritten text, thirteenth line, mostly illegible.

Handwritten text, fourteenth line, mostly illegible.

Handwritten text, fifteenth line, mostly illegible.

Handwritten text, sixteenth line, mostly illegible.

12

Handwritten text, seventeenth line, mostly illegible.

Handwritten text, eighteenth line, mostly illegible.

Erection and behaviour of fission products
(Entstehen und Verhalten der Spaltprodukte) Flammersfeld

Nuclear cross sections of Uranium (Wirkungs-
querschnitt am Uran) Droste

Spontaneous fission (Spontane Spaltung) Fluegge

Fission of elements other than Uranium
(Spaltung anderer Elemente als Uran) Jentschke

VI. APPLICATION OF NUCLEAR PHYSICS (ANWENDUNGEN DER KERNPHYSIK)

Radioactive isotopes as indicators in chemistry
(Radioaktive Isotope: als Indikatoren in der
Chemie) Starke

Radioactive isotopes as indicators in biology
(Radioaktive Isotope als Indikatoren in der
Biologie) Schubert

Inactive isotopes as indicators (Inaktive Isotope Paul
als Indikatoren)

VII. NUCLEAR TECHNIQUE (KERNTECHNIK)

Mixtures of moderating and fissionable sub-
stances (Mischungen von bremsender und spalt-
barer Substanz) Haxel
Volz

The problem of resonance absorption in mixtures
(Das Problem der Resonanzabsorption in Mischun-
gen) Haxel
Volz

The selection of moderators (Die Wahl der
Bremsmittel) Hoecker

Piles (Schichtenanordnung) Hoecker

The contribution of fast neutrons (Der Beitrag
der schnellen Neutronen) Jensen

The large scale experiments (Die Grossversuche) Bothe
Heisenberg

Large scale separation of isotopes (Isotopen-
trennung in grossem Masstabe) Harteck

VIII. APPENDIX (ANHANG)

General information on German Institutes and
new installations (Allgemeine Angaben ueber
deutsche Institute - Neubauten u. dergl.)