Record Nr. UNINA9910808581303321 Autore Lipkin Harry J Titolo Andrei Sakharov: quarks and the structure of matter / / Harry J. Lipkin, Weizmann Institute of Science, Israel Pubbl/distr/stampa Singapore, : World Scientific Pub. Co., 2013 New Jersey:,: World Scientific,, [2013] 2013 **ISBN** 1-299-46236-7 981-4407-42-9 Descrizione fisica 1 online resource (xiv, 148 pages): illustrations Collana Gale eBooks 539.72167 Disciplina 947.084092 Soggetti Quarks Nuclear physics - History Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di bibliografia Includes index. Contents; Preface; Chapter 1. Quarks and Smuggled Postcards from Nota di contenuto Andrei Sakharov: Publicity to Help Sakharov and Refuseniks: The Harassment of Andrei Sakharov Despite His Scientific Achievements; Continuing Harassment of Andrei Sakharov: Appeals for Humane Treatment of Sakharov; Chapter 2. Andrei Sakharov and the Weizmann Institute; Sakharov's Contributions and Achievements; Chapter 3. The Weizmann Institute and the Scientific History of Sakharov's Work: Following up the Formula in the Postcard; Why are There Always Too Many Particles?; Elements and Compounds; How To Test The Quark Theory Updating the 1966 Mass FormulaHow Particles Behave Like Tiny Magnets; Chapter 4. How Scientists Study Nature-Pure and Applied Research; What is Scientific Research?; From Relativistic Quantum Theory to the Human Brain: Appendix: The Impact of Dirac's Positrons on My Own Career; Creative Questioning; Chapter 5. The Building Blocks of Matter-What is a Quark?; The Structure of Matter; How

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Sommario/riassunto

In 1980, the Cold War was in full bloom. The Soviet father of the hydrogen bomb and Nobel Peace Laureate turned dissident physicist, Andrei Sakharov, had been exiled to Gorki by the Soviet authorities. Called "senile" and under heavy Soviet censorship, Sakharov had a hard time communicating his latest scientific results to readers outside of Gorki. Some smuggled results reached the author, Harry Lipkin, who then realized that he and Sakharov were both pioneers in a new revolution on our understanding the structure of matter. The particle physics community had resisted their revelation that the