Record Nr. UNINA9910462632803321 Autore Galimov Erik M Titolo Origin of the moon [[electronic resource]]: new concept, geochemistry, and dynamics / / by Erik M. Galimov and Anton M. Krivtsov Berlin; ; Boston, : De Gruyter, c2012 Pubbl/distr/stampa **ISBN** 1-283-85708-1 3-11-028640-8 Descrizione fisica 1 online resource (180 p.) Altri autori (Persone) KrivtsovAnton M Disciplina 523.3 Soggetti Lunar geology Electronic books. Moon Origin Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references (p. [145]-162) and index. Nota di contenuto Front matter -- Contents -- Introduction -- Part I. Geochemistry --Chapter 1. The Moon as a celestial body -- Chapter 2. The history of the study of the Moon -- Chapter 3. The Moon as a geological body --Chapter 4. Similarity and difference in composition of Earth and Moon -- Chapter 5. Hypotheses on the origin of the Moon -- Chapter 6. The model of evaporative accretion -- Chapter 7. Geochemical constraints and how the giant impact and evaporative accretion concepts satisfy them -- Part II. Dynamics -- Chapter 8. Dynamical modeling of fragmentation of the gas-dust cloud -- Chapter 9. Dynamic modeling of accretion -- Conclusions -- References -- Index The origin of the Moon remains an unsolved problem of the planetary Sommario/riassunto science. Researchers engaged in celestial dynamics, geophysics, and geochemistry are still discussing various models of creation of our closest cosmic neighbour. The most popular scenario, the impact hypothesis involving a collision early in the Earth's history, has been substantially challenged by the new data. The birth and development of a planet-moon system always plays a role in the formation of an entire

planetary system around our Sun or around another star. This way, the story of our Moon acquires broader ramifications for one of the hottest topics of the modern scholarship. All this has motivated the authors of

this book to consider a new concept and to compare the currently discussed theories, analyzing their advantages and shortcomings in explaining the experimental data.