

1. Record Nr.	UNINA9910830145903321
Titolo	Iceland within the Northern Atlantic . Volume 2 Interactions between volcanoes and glaciers // edited by Brigitte Van Vliet-Lanoe
Pubbl/distr/stampa	London, England : , : Wiley-ISTE, , [2021] ©2021
ISBN	1-119-85087-8 1-119-85089-4 1-119-85088-6
Descrizione fisica	1 online resource (269 pages)
Collana	Geoscience, Lithosphere-Asthenosphere interactions
Disciplina	554.912
Soggetti	Geology - Iceland Volcanoes - Iceland Glaciers - Iceland
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Half-Title Page -- Title Page -- Copyright Page -- Contents -- List of Abbreviations -- Preface -- Introduction -- 1. Young Icelandic Volcanism and its Implications -- 1.1. Introduction -- 1.2. Icelandic magma series -- 1.2.1. Lava types -- 1.2.2. Geochemical diversity of young Icelandic basalts and their sources -- 1.2.3. Some geochemical constraints concerning the origin and geodynamic evolution of Iceland -- 1.3. Central volcanoes and active fissural systems -- 1.3.1. Central volcanoes -- 1.3.2. Fissural volcanism and subaerial lava flows -- 1.3.3. Hydromagmatism -- 1.4. Volcanic hazards in Iceland -- 1.4.1. Hazards related to lava flows -- 1.4.2. Hazards related to explosions and gas emissions -- 1.4.3. Jokulhlaups and associated hazards -- 1.4.4. Icelandic dust: a consequence of volcanism -- 1.5. References -- 2. Volcanism and Glaciations: Forcings and Chronometers -- 2.1. Subglacial volcanic landforms -- 2.1.1. Subglacial isolated volcanoes or tuyas -- 2.1.2. Hyaloclastite ridges or tindar -- 2.2. Volcanism, deglaciation and climate -- 2.2.1. General features: deglaciation, discharge and partial melting -- 2.2.2. Deglaciation and climate feedback -- 2.3. The hypothesis of a link

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Sommario/riassunto

The volcanic island of Iceland is a unique geological place due both to its position in the middle of the Atlantic Ocean and its repeated glaciations. It has been an accurate recorder of geodynamic and regional climatic evolutions for at least the last 15 million years. This book studies the Quaternary magmatism associated with the deep Iceland hotspot and, in particular, its distinctive geochemical and volcanological characteristics. It also analyzes that Arctic glacierization as it relates to the opening of the North Atlantic and the appearance of today's ocean currents. We will also investigate the Quaternary glaciation as it affected Iceland in its oceanic context, particularly on the basis of radiometric dating, looking at the formation of the Greenland and Scandinavian ice sheets and data from marine sediment. Finally, it explores the specific environmental features of the island, from the end of the last ice age to global warming today. This book brings together the internal and external geodynamics of our planet to understand how Iceland functions and its role as a recorder of the paleoclimatic evolution of the Northern Hemisphere.
