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| Autore | Spica Zack |
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| ISBN | 3-031-86841-2 |
| Edizione | [1st ed. 2025.] |
| Descrizione fisica | 1 online resource (905 pages) |
| Collana | Advances in Volcanology, An Official Book Series of the International Association of Volcanology and Chemistry of the Earth's Interior, , 2364-3285 |
| Altri autori (Persone) | CaudronC (Corentin) |
| Disciplina | 551.21 |
| Soggetti | Geophysics Fiber optics Geochemistry Natural disasters Fiber Optics Natural Hazards |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | 1. Time-Variable Volcano Gravimetry -- 2. Monitoring volcanoes deformation based on Synthetic Aperture Radar (SAR) data -- 3. Detection and Location of Volcano-Tectonic Earthquakes -- 4. Monitoring LP & VLP seismicity -- 5. Network-based analysis of seismo-volcanic tremors -- 6. Coda wave interferometry for volcano monitoring -- 7. On the use of Infrasound in volcano monitoring and early warning -- 8. Geochemical monitoring of volcanic fluids in the 21st century -- 9. Remote monitoring of volcanic gases -- 10. Monitoring lava flows -- 11. Thermal monitoring of volcanoes from space -- 12. From eruptive histories to volcano monitoring: probabilistic eruption forecasting and volcanic hazard assessment at varying temporal and spatial scales -- 13. Prospects for forecasting volcanic eruptions after long repose -- 14. Machine learning for volcano monitoring -- 15. Monitoring Lightning and Electrification in Volcanic Plumes -- 16. Muography of Volcanoes -- 17. Fiber optic sensing for volcano monitoring and imaging volcanic processes. |
| Sommario/riassunto | This book describes the different tools that have been developed |

during the last decades to explain how scientists study volcanoes. It takes into consideration volcanology as being a complex field at the interface between geology, geochemistry and geophysics and provides information about these aspects to embrace the diversity of a volcanic system. The book also provides an outlook to which direction this research is leading. It offers a hands-on experience directly useful if the reader wants to start applying the principles exposed.
