

1. Record Nr.	UNINA9910896532303321
Titolo	Interface Ionics : For All-Solid-State Batteries and Solid State Ionics Devices / / edited by Yasutoshi Iriyama, Koji Amezawa, Yoshitaka Tateyama, Naoaki Yabuuchi
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9760-39-9
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (541 pages)
Collana	The Materials Research Society Series, , 2730-7379
Disciplina	541.33
Soggetti	Materials Catalysis Force and energy Electric batteries Electrochemistry Solid state chemistry Surfaces (Technology) Thin films Materials for Energy and Catalysis Batteries Solid-State Chemistry Surfaces, Interfaces and Thin Film
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Overview of Interface Ionics project -- Model Interface -- Preparation of a standard model battery and electrode solid electrolyte interface -- Thin film battery with epitaxial LiCoO <sub>2</sub> cathode -- Insertion and extraction mechanism at epitaxial graphene.
Sommario/riassunto	This book focuses on ion transport and storage around the interfaces in solid-state ionics devices, especially for all-solid-state batteries. It covers materials research from fundamental model systems to practically important materials, advanced analysis methods, and computational & data science. This volume is intended for researchers in academia and industry who have studied or worked in this field. It is

expected to provide readers with guidelines for interface and material design aimed at advancing all-solid-state batteries, as well as insights into the development of novel solid-state ionics devices. This book is a summary of the studies obtained in the Grant-in-Aid for Scientific Research on Innovative Areas "Interface Ionics" founded by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) during 2019-2023.

---