

1. Record Nr.	UNIPARTHENOPE000015828
Autore	Montefinale, Gino
Titolo	Sulla tecnica degli alti vuoti per tubi elettronici / G. Montefinale
Pubbl/distr/stampa	Milano : Stabilimento Tip. lit. Stucchi, Ceretti, 1924
Descrizione fisica	6 p. : ill. ; 35 cm
Collana	Pubblicazioni dell'Istituto elettrotecnico e radiotelegrafico della R. Marina ; 0029
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Collocazione	DEP I-0360 (20)
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Livello bibliografico	Monografia
Note generali	In test. al front.: R. Accademia navale - Livorno Estratto dal giornale: L'elettrotecnica, vol. XI, 15 settembre 1924, n. 26

2. Record Nr.	UNINA9910568258903321
Autore	Mogi Masataka
Titolo	Quantized Phenomena of Transport and Magneto-Optics in Magnetic Topological Insulator Heterostructures // by Masataka Mogi
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	9789811921377 9789811921360
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Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5061
Disciplina	530.41
Soggetti	Spintronics Topological insulators Surfaces (Physics) Semiconductors Solid state physics Topological Material Surface and Interface and Thin Film Electronic Devices
Lingua di pubblicazione	Inglese
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Note generali	"Doctoral Thesis accepted by The University of Tokyo, Tokyo, Japan."
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Experimental Methods -- Magnetic Modulation Doping For Quantum Anomalous Hall Effect -- Magnetic Proximity Induced Quantum Anomalous Hall Effect -- Topological Phase Transitions Relevant to Quantum Anomalous Hall Effect -- Half-integer Quantized Electrodynamics in 3D Topological Insulator -- Summary.
Sommario/riassunto	This book presents experimental studies on emergent transport and magneto-optical properties in three-dimensional topological insulators with two-dimensional Dirac fermions on their surfaces. Designing magnetic heterostructures utilizing a cutting-edge growth technique (molecular beam epitaxy) stabilizes and manifests new quantization phenomena, as confirmed by low-temperature electrical transport and time-domain terahertz magneto-optical measurements. Starting with a review of the theoretical background and recent experimental advances in topological insulators in terms of a novel magneto-electric coupling,

the author subsequently explores their magnetic quantum properties and reveals topological phase transitions between quantum anomalous Hall insulator and trivial insulator phases; a new topological phase (the axion insulator); and a half-integer quantum Hall state associated with the quantum parity anomaly. Furthermore, the author shows how these quantum phases can be significantly stabilized via magnetic modulation doping and proximity coupling with a normal ferromagnetic insulator. These findings provide a basis for future technologies such as ultra-low energy consumption electronic devices and fault-tolerant topological quantum computers.
