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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Matter -- Introduction to Viruses -- Overview of Molecular Biology -- Basics of Virology -- Pandemics, Epidemics, and Outbreaks -- Virus Prevention, Diagnosis, and Treatment -- Safety Protocols and Personal Protection Equipment / Emma Parente -- Epidemiology and Virus Transmission -- Practical and Technical Considerations -- Engineering Principles and Fundamentals -- Legal and Regulatory Considerations -- Emergency Planning and Response -- Ethical Considerations within Virology -- Health and Hazard Risk Assessment -- Engineering Considerations -- Introduction to Mathematical Methods -- Probability and Statistical Principles -- Linear Regression -- Ventilation -- Pandemic Health Data Modeling -- Optimization Procedures -- Index
Sommario/riassunto	In A Guide to Virology for Engineers and Applied Scientists: Epidemiology, Emergency Management, and Optimization, a team of distinguished researchers delivers a robust and accessible treatment of virology from an engineering perspective. The book synthesizes a great deal of general information on viruses-including coronaviruses - in a single volume. It provides critical context that engineers and applied scientists can use to evaluate and manage viruses encountered in the environment. The fundamental principles of virology are explored with

calculation details for health and hazard risk assessments. Each chapter combines numerous illustrative examples and sample problems ideal for advanced courses in environmental health and safety, pharmaceuticals, and environmental science and engineering

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