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Nota di contenuto	Overview of Fractional Calculus Theory -- Fractional-order Electrical Circuits and Their Fundamental Laws -- Network Theorems of Fractional-order Electrical Circuits -- Time-domain Analysis of Fractional-order Dynamic Electrical Circuits -- Sinusoidal Steady-state Analysis of Fractional-order Electrical Circuits -- Fractional-order Three-phase Sinusoidal Electrical Circuits -- Analysis of Periodic Non-sinusoidal Steady-state Fractional-order Electrical Circuits -- Fractional-order Two-port Network -- Complex Frequency Domain Analysis of Fractional-order Electrical Circuits -- State Variable Analysis Method of Fractional-order Electrical Circuits -- Fractional-order Generalized Linear Electrical Circuits and Their Properties.
Sommario/riassunto	This book presents a concise and insightful view of the knowledge on fractional-order electrical circuits, which belongs to the subject of Electric Engineering and involves mathematics of fractional calculus. It offers an overview of fractional calculus and then describes and analyzes the basic theories and properties of fractional-order elements and fractional-order electrical circuit composed of fractional-order elements. Therein, the fundamental theorems, time-domain analysis, steady-state analysis, complex frequency domain analysis and state variable analysis of fractional-order electrical circuit are included. The

fractional-order two-port networks and generalized fractional-order linear electrical circuits are also mentioned. Therefore, this book provides readers with enough background and understanding to go deeper into the topic of fractional-order electrical circuit, so that it is useful as a textbook for courses related to fractional-order elements, fractional-order electrical circuits, etc. This book is intended for students without an extensive mathematical background and is suitable for advanced undergraduate and graduate students, engineers and researchers who focus on the fractional-order elements, electrical circuits and systems. .