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Nota di contenuto	Introduction -- Why collect into one volume the discoveries of elements that have been shown to be erroneous or have been forgotten? -- How "an element" became a "chemical element" -- Is there any order to the discoveries of the elements? -- The development of the Periodic Table -- PART I: Before 1789: early errors and early elements -- Prologue to Part I -- 1. The beginning of a long series of scientific blunders : Terra Nobilis ; Siderum and Hydrosiderum ; Synneium or Australium ; The element that breathes ; The birth of homeopathy -- 2. The elements

hidden by alternative names : Metallum Problematicum or Tellurium ; Ochroite or Cerium ; Ceresium or Palladium ; Erythronium, Panchromium, or Vanadium --

PART II: 1789-1869: from Lavoisier to Mendeleev: The first errors at the dawn of the concept of the chemical element -- Prologue to Part II -- 1. Analytical methodology from Lavoisier to Mendeleev ; Blowpipe analysis ; Qualitative and quantitative analysis ; Electrolysis ; Emission spectroscopy -- 2. The elements of the Kingdom of Naples : Ruprecht and Tondi: two metallurgists without metals ; Playing bingo with five elements ; The extraction procedure of the new metals ; Right or wrong, was Tondi the victim of a sworn enemy? ; The elements that replaced those of Tondi ; Possible present-day interpretations ; Revolution offers a second career possibility -- 3. Austrium: One element, two elements, three elements, and finally, zero elements : The first fleeting attempt to name an element Austrium ; Austrium: a posthumous element ; The "Austrian element" of a Czech chemist ; A third "split" for Bohuslav Brauner -- 4. The return of the Olympians: Silene, Aridium, Saturnum, Pelopium, Dianium, Neptunium, and Plutonium ; Silene ; Aridium ; Saturnum ; Pelopium ; Dianium ; Neptunium ; Plutonium -- 5. the unfortunate affair of a student of Kant: A career soldier, but a chemist by passion : Niccolanum ; The road from oblivion -- 6. André-Marie Ampère burst onto the chemistry scene : "Photore" -- 7. Cadmium: "Bone of contention" among chemical elements : A related discovery increases the confusion: Vestium -- 8. A fireproof family of chemists : Chemistry as the common denominator ; The most improbable of the chemical elements -- 9. A bridge of false hopes between divinity and false elements : Crodonium ; Wodanium ; False elements exchanged for another false element ; Ptene ; Donarium -- 10. Gahnium, Polonium, and Pluranium : Gahnium ; Polinium an Pluranium -- 11. Aberdonia and the "sweet" map of oblivion : Donium ; Treenium ; The discovery of an already known element? ; The sweet epilogue leaves a bitter taste in the mouth -- 12. The brief parentheses of four misleading elements : The fleeting existenc of Thalium ; The meteoric appearance and disappearance of Comesium ; The mysterious nature of Ouralium ; The brief history of Idunium -- 13. Two imaginary elements: Sulphurium and Sulfenium : Sulphurium ; The ancient modernity of Sulfenium -- 14. The astronomers "left in the dark" : "Light" as a means of chemical investigation ; A new family of elements from an old family of astronomers ; Neptunium is tempting to a lot of people ; Conclusion --

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9. The demon hidden in the rare earths : Provincial America suits the great physicist just fine ; The son of a Protestant pastor discovers a demon ; The tragic conclusion -- 10. Dim lights and dark shadows around "Lucium" : Preview of the discovery ; The discovery of the first "patented" element ; The interventions of Crookes, Fresenius, and Shapleigh ; Who was manipulating Lucium's strings from behind the scenes? -- 11. In the beginning there was Didymium...and then chaos among the rare earths : Didymium: an awkward lodger in the f-family ; The splitting of Didymium: Praeseodidymium and Neodidymium ; A "colorful" war: Glaucodidymium OR Glaucodymium ; Claude-Henri Gorceix and Bohuslav Brauner intervene in the chaos --

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3. A success "transmuted" into failure : Brevium ; Lisonium and Lisottonium ; Radio-Brevium and the missed discovery of nuclear fission ; Brevium's last gasp -- 4. From Pleochroic Haloes to the birth of the Earth : The origins of the Irish physicist ; Radioactivity makes dating of the Earth possible ; Hibernium: an elusive element -- 5. If anyone has a sheep, Wolfram will eat it : The neighbors of Molybdenum and

Tungsten -- 6. When it comes to new discoveries, the more you err, you end up erring more -- 7. The radioactive element of the hot springs -- 8. Moseleyum: The twofold attempt to honor a hero -- 9. The inorganic evolution of element 61: Florentium, Illinium, Cyclonium and finally Promethium : Florentium, the metal of the Florentines ; The Americans discover Illinium ; Integrity comes with a price tag ; Florentium ends up in court ; Cyclonium ; The retraction of the discovery of Florentium ; Conclusion ; Epilogue --

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12. A cocktail of chemistry and espionage: Helvetium, Anglo-Helvetium, and a pair of Indian elements : Rajendralal De and his twin elements: Gourium and Dakin ; Walter Minder and Helvetium ; Alice Leigh-Smith and Anglo-Helvetium ; C.W. Martin and the "elusive" parentheses of Leptine ; Academic conflicts with Hulubei, Paneth, and Karlik ; Conclusion -- 13. Is failure a severe master? : Eline ; Verium --

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PART VI: No place for them in the Periodic Table: Bizarre elements -- 1. Inorganic evolution: From proto-elements to extinct elements : A step backward: prime matter, Andronia, and Thelyke ; Pantogen ; Prityle ; Other theories of chemical evolution ; The asteroid elements ; The painful finale -- 2. Dazzling traces of false suns : The mirage of the source of stellar energy ; The curious appearance of Kosmium and Neokosmium -- 3. From the nonexistent elements of Mendeleev to the puzzle of the existence of the Ether : Coronium and its aftermath ; The Geo coronium hypothesis ; Etherium: elementary gas or subatomic particle? -- 4. Anodium and Cathodium -- 5. The exotic Damarium -- 6. Subtle is the air: The case of Asterium -- 7. Clairvoyance as a means of investigating some "occult elements" : A clairvoyant investigates the structure of new and old atoms and their position in the Periodic Table ; The last years of the three clairvoyants --

8. William Harkins's Element Zero: Neutronium : A place in the Periodic Table for the element without a nuclear charge ; From the nuclear "alphabet" to the hypothesis of Neutronium ; William Draper Harkins: a versatile and obstinate chemist --

PART VII: Modern alchemy: the dream to transmute the elements has always been with us -- Prologue to Part VII: Alchemy then and now -- 1. Misadventures in radiochemistry : Radiochemistry: a child of both

physics and chemistry ; Willy Marckwald makes his mark: the Polonium controversy ; William Ramsay "out of his element" ; Tellurium X -- 2. Some like it "cold" -- 3. Is cold fusion hot again? -- Epilogue -- Postscript -- Appendix: Chronological finder's guide for the lost elements.

Sommario/riassunto

Throughout its formation, the periodic table has seen false entries, good-faith errors, retractions, and dead ends; in fact, there have been more elemental 'discoveries' that have proven false than there are current elements on the table. This book collects the most notable of these instances, stretching from the nineteenth century to the present. The book tells the story of how scientists have come to understand elements, by discussing the failed theories and false discoveries that shaped the path of scientific progress.
