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| Descrizione fisica | 1 online resource (585 pages) ; : illustrations |
| Collana | Oxford scholarship online |
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| Soggetti | Chemical elements<br>Chemical elements - History<br>Periodic law - History<br>Chemistry - Nomenclature - History<br>Chemistry<br>Elements químics<br>Química - Nomenclatura - Història<br>Taula periòdica (Química)<br>Electronic books |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| 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 --
15. Bythium and  [delta]: Two elements that arose (and vanished) via electrolysis -- 16. The ghosts of unnamed elements : 1799: the element of Fernandez ; 1852: the element of Friedrich August Genth ; 1852: the element of Carl Anton Hjalmar Sjögren ; 1861: the elements of brothers August and Friedrich Wilhelm Dupré ; 1862: the element of Charles Fredrick Chandler ; 1864: the elements of William Nylander and Carl Bischoff ; 1869: the element of Oscar Loew ; 1878: the elements of William Balthasar Garland ; 1883: the element of Theodor Eduard Wilm ; 1897: the elements of Gethen G. Boucher and F. Ruddock ; 1904: the Radium foil of George Frederick Kunz ; 1908: the element of Clare de Brereton Evans ; 1913: the element of H.C. Holtz --
PART III: 1869-1913: From the periodic table to Moseley's law: Rips and tears in Mendeleev's net -- Prologue to Part III -- 1. The forerunners of Celtium and Hafnium: Ostranium, Norium, Jargoniam, Nigrium, Euxenium, Asium, and Oceanium -- 2. The discoveries of the rare earths approach their end: Philippium, Element X, Decipium ; Mosandrium, Rogerium, and Columbium : Philippium and Element X ;

Mosandrium ; Decipium and the complexity of Didymium ; Rogerium and Columbium ; Conclusion -- 3. Lavoesium and Davyum: The rise and fall of two metals with illustrious names : The discovery of Lavoesium ; A residue of work on Platinum: Davyum ; Lavoesium falls into oblivion ; Davyum's long agaony ; Conclusion --
4. The complex events surrounding two "Scandinavian" metals: Norwegium and Wasium : The announcement of the discovery of Norwegium ; Norwegium ; A second claimant ; The "launching" of Wasium ; The "shipwreck" of Wasium ; The epilogue f Norwegium -- 5. Verbium: An element from the centre of the Earth -- 6. The curious case of the triple discovery of Actinium : The first announcement of the discovery of Actinium ; Confessions of a violinist ; Did the search for Neoactinium really delay the discovery of Francium ; A cold shower at the end of a career -- 7. The improbable elements of a country gentleman -- 8. A bridge between the protochemistry of the Pharaohs and the Arab world: Masrium --
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 scences? -- 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 --
12. Sir William Ramsay: The most "noble" of chemists : The first discoveries ; A wroing track ; Anomalous Argon: the element that would not fit ; A pause in research ; Radioactivity and the discovery of Niton ; A harvest of laurels at the conclusion of his career ; Postscript: Krypton II -- 13. Confederate and Union stars in the Periodic Table : Introduction ; Carolinium (and Berzelium) ; Conclusion -- 14. Two elements from the depths of provincial Americana -- 15. The early successes of the young Urbain : Bauxium ; From Monium to Victorium and in pursuit of Ionium and Incognitum ; The Element E or X ; The meta elements ; The elements of Paul Emile (François) Lecoq de Boisbaudran and of Eugène-Anatole Demarçay ; The Terbium-I, Terbium-II, and Terbium-III of Welsbach -- 16. The setting of the element of the "Rising Sun" -- 17. The times have changed: from Canadium to Quebecium : Who is Pierre Demers? --
PART IV: 1914-1939: From nuclear classification to the first accelerators: Chemists' paradise lost... (and physicists' paradise regained) -- Prologue to Part IV -- 1. From the eclipse of Aldebaranium and Cassiopeium to the priority conflict between Celtium and Hafnium : A collective history: the rare earths ; The lights of Paris hide the stars ; Celtium ; Neo-Celtium ; Celtium doesn't have a leg to stand on -- 2. From the presumed inert elements to those lost in the Dead Sea : The atomic theory of James Moir and the Subelements X and Zoïkon ; The harmonization of the elements and the inert elements ; From England to Prague on the trail of element number 75 ; On the banks of the Dead Sea: the first investogations for the identification of element 87 ; Alkalinium ; Alkalinium's epilogue --
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

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| | 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. |