1. Record Nr. UNINA9910735787103321

Autore	Srivastava Ambrish Kumar
Titolo	Superhalogens : properties and applications / / Ambrish Kumar Srivastava
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-37571-8
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (x, 71 pages) : illustrations (some color)
Collana	SpringerBriefs in Molecular Science, , 2191-5415
Disciplina	541.22 539.6
Soggetti	Halogens Microclusters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Transition metal fluorides and oxides as superhalogens -- Superhalogens as strong oxidizers -- Superhalogens in the design of superacids -- Superhalogens in the design of electrolytic salts -- Miscellaneous applications of superhalogens -- Conclusion and future perspectives.
Sommario/riassunto	This brief introduces the reader to the topic of superhalogens, a special class of atomic clusters that can potentially mimic the behavior of halogen atoms. It provides an introduction to the history of superhalogens, their conceptualization, and experimental confirmation and discusses in detail their properties and various applications. Some of the applications analyzed in the text include their potential use in the design of superacids, electrolytes for Li-ion batteries, and organic superconductors as well as their use in ionic liquids. The latest developments in the field are also presented. This brief is of great interest to graduates and researchers working at the interface of chemistry, physics, and materials science.