Record Nr. UNINA9910357823803321 Autore de Berg Kevin C Titolo The Iron(III) Thiocyanate Reaction: Research History and Role in Chemical Analysis / / by Kevin C. de Berg Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-27316-4 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XI, 99 p. 24 illus., 21 illus. in color.) Collana History of Chemistry, , 2212-991X 540.9 Disciplina Soggetti Chemistry - History Chemistry, Physical and theoretical Chemistry, Inorganic Science - Philosophy Science - History History of Chemistry Physical Chemistry Inorganic Chemistry Philosophical and Historical Foundations of Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- The Reaction and Chemical Analysis -- The Reaction and its Nomenclature, Formulae, and Units -- The Reaction: Chemical Affinity and Controversy -- The Reaction: Chemical Affinity: Laws, Theories and Models -- The Reaction and its Equilibrium Constants: The Role of Mathematics and Data Analysis -- The Reaction and its Kinetics -- The Reaction in Secondary and Tertiary Education Curricula -- Conclusions. Sommario/riassunto This Brief presents an historical investigation into the reaction between ferric ions and thiocyanate ions, which has been viewed in different ways throughout the last two centuries. Historically, the reaction was used in chemical analysis and to highlight the nature of chemical reactions, the laws of chemistry, models and theories of chemistry, chemical nomenclature, mathematics and data analysis, and instrumentation, which are important ingredients of what one might

call the nature of chemistry. Using the history of the iron(III) thiocyanate reaction as a basis, the book's main objective is to explore how chemistry develops its own knowledge base; how it assesses the reliability of that base; and how some important tools of the trade have been brought to bear on a chemical reaction to achieve understanding, a worthwhile goal of any historical investigation.