

1. Record Nr.	UNINA9910658631703321
Titolo	Perchlorates : production, uses, and health effects // editor, Lawrence E. Matthews
Pubbl/distr/stampa	Hauppauge, N.Y., : Nova Science Publishers, c2011
ISBN	1-61122-143-9
Edizione	[1st ed.]
Descrizione fisica	1 online resource (371 p.)
Collana	Chemical Engineering Methods and Technology
Altri autori (Persone)	MatthewsLawrence E. <1960->
Disciplina	661/.42
Soggetti	Perchlorates Perchlorates - Environmental aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- PERCHLORATES: PRODUCTION,USES AND HEALTH EFFECTS -- PERCHLORATES: PRODUCTION,USES AND HEALTH EFFECTS -- CONTENTS -- PREFACE -- Chapter 1TRENDS IN THE STUDY OF THE ELECTROCHEMICALSTABILITY OF PERCHLORATE IONSAGAINST REDUCTIVE ATTACKS -- ABSTRACT -- 1. INTRODUCTION -- 2. HETEROGENEOUS CATALYTIC/ELECTROCATALYTIC ASPECTSO F PERCHLORATE REDUCTION -- 3. REACTION MECHANISMS AND ELECTRODE IMPEDANCE -- 4. REDUCTION OF PERCHLORATE IONS IN THE COURSE OF ANODICDISSOLUTION AND CORROSION OF METALS -- 5. INTERACTION OF PERCHLORATE IONS WITH IRON GROUPMETALS IN AQUEOUS MEDIA -- 6. INVESTIGATION OF ANION ADSORPTION IN THE COURSE OFCOUPLED METAL DISSOLUTION AND PERCHLORATE REDUCTION -- 7. SOME INTERESTING RESULTS OF PRACTICAL ASPECTS -- CONCLUSIONS -- ACKNOWLEDGMENT -- REFERENCES -- Chapter 2LITHIUM AND MAGNESIUM PERCHLORATESOLUTIONS AND THEIR INFLUENCEON THE RATE AND EQUILIBRIUM OF SOME CYCLOADDITION REACTIONS -- ABSRACT -- INTRODUCTION -- ACCELERATION THE DIELS-ALDER REACTION BYCOMMON LEWIS ACIDS -- SALT-SOLUTION EFFECT ON THE DIELS-ALDER REACTION -- REACTION (3+2)-CYCLOADDITION -- REACTION (2+2)-CYCLOADDITION -- CAUSE AND EFFECT -- REFERENCES -- Chapter 3STRUCTURAL AND VIBRATIONAL PROPERTIESOF CHROMYL PERCHLORATE -- ABSTRACT -- INTRODUCTION -- STRUCTURE AND PROPERTIES OF CHROMYL

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## Sommario/riassunto

Perchlorates are the salts derived from perchloric acid ( $\text{HClO}_4$ ). They occur both naturally and through manufacturing. They have been used as a medicine for more than 50 years to treat thyroid gland disorders and are used extensively within the pyrotechnics industry, and ammonium perchlorate is also a component of solid rocket fuel. This book presents current research data from across the globe in the study of perchlorates, their production, uses, and health effects. Some topics discussed, herein, are: trends in the study of the electrochemical stability of perchlorate ions; the structural and vibrational properties of chromyl perchlorate; perchlorate formation in electrochemical water disinfection; metal perchlorates as Lewis acids; alkaline earth metal perchlorates; and removal of perchlorate from water.