

1. Record Nr.	UNINA9910143239203321
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Titolo	Avoiding static ignition hazards in chemical operations [[electronic resource] /] / Laurence G. Britton
Pubbl/distr/stampa	New York, : Center for Chemical Process Safety of the American Institute of Chemical Engineers, c1999
ISBN	1-282-78331-9 9786612783319 0-470-93540-5 1-59124-591-5 0-470-93539-1
Descrizione fisica	1 online resource (304 p.)
Collana	CCPS concept book
Disciplina	660.2804 660/.2804
Soggetti	Electrostatics Chemical plants - Safety measures Electronic books.
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	Avoiding Static Ignition Hazards in Chemical Operations: A CCPS Concept Book; CONTENTS; Preface; Acknowledgments; 1 INTRODUCTION; 1-1. Purpose; 1-2. Exclusions; 1-3. Units; 1-4. Organization of the Book; 2 FUNDAMENTALS OF STATIC ELECTRICITY; 2-1. What Is Static Electricity?; 2-1.1. Charge Separation; 2-1.2. Magnitude of Current and Potential; 2-1.3. Concentration of Charged Species; 2-1.4. Importance of Trace Contaminants; 2-1.5. Hazard Evaluation; 2-1.6. Statistics; 2-2. Charge Generation; 2-2.1. Induction Charging; 2-2.2. Ionic Charging; 2-3. Charge Dissipation 2-3.1. Variability of Conductivity2-4. Charge Accumulation; 2-5. Ignition; 2-5.1. Effective Energy; 2-6. Static Discharges; 2-6.1. Corona Discharge; 2-6.2. Brush Discharge; 2-6.3. Bulking Brush Discharge; 2-6.4. Spark Discharge; 2-6.5. Propagating Brush Discharge (PBD); 2-6.6. Surface Streamer; 2-7. Personnel Spark and Shock Hazards; 2-7.1. Body Capacitance and Resistance; 2-7.2. Voltage (V) and Energy (W)

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## Sommario/riassunto

Written by Laurence Britton, who has over 20 years' experience in the fields of static ignition and process fire and explosion hazards research, this resource addresses an area not extensively covered in process safety standards or literature: understanding and reducing potential hazards associated with static electricity. The book covers the nature of static electricity, characteristics and effective energies of different static resources, techniques for evaluating static electricity hazards, general bonding, grounding, and other techniques used to control static or prevent ignition, gases an