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Shockwave; Effect of Density on the Velocity of Detonation; Effect of Diameter of the Explosive Composition on theVelocity of Detonation; Effect of Explosive Material on the Velocity of Detonation; Classification of Explosives; Chapter 4; Ignition, Initiation and Thermal Decomposition; Ignition; Hotspots; Mechanisms for the Formation of Hotspots
Ignition by Impact and FrictionFriction; Impact; Classification of Explosives; Initiation Techniques; Explosive Train; Detonators; Igniters; Thermal Decomposition; Chapter 5; Thermochemistry of Explosives; Oxygen Balance; Decomposition Reactions; Kistiakowsky-Wilson Rules; Modified Kistiakowsky-Wilson Rules; Springall Roberts Rules; Heats of Formation; Heat of Explosion; Effect of Oxygen Balance; Volume of Gaseous Products of Explosion; Explosive Power and Power Index; Temperature of Chemical Explosion; Mixed Explosive Compositions; Atomic Composition of the Explosive Mixture; Oxygen Balance Decomposition ReactionHeat of Explosion; Volume of Gaseous Products; Energized Explosives; Addition of Aluminium; Force and Pressure of Explosion; Chapter 6; Equilibria and Kinetics of Explosive Reactions; Equilibria; Products of Decomposition; The Water-Gas Equilibrium; Heat of Explosion; Temperature of Explosion; Kinetics of Explosive Reactions; Activation Energy; Rate of Reaction; Kinetics of Thermal Decomposition; Measurement of Kinetic Parameters; Differential Thermal Analysis; Thermogravimetric Analysis; Differential Scanning Calorimetry; Chapter 7; Manufacture of Explosives; Nitration C-Nitration

Sommario/riassunto	Revised and expanded to reflect new developments in the field, this book outlines the basic principles required to understand the chemical processes of explosives. The Chemistry of Explosives provides an overview of the history of explosives, taking the reader to future developments. The text on the classification of explosive materials contains much data on the physical parameters of primary and secondary explosives. The explosive processes of deflagration and detonation, including the theory of 'hotspots' for the detonation process, are introduced and many examples are provided in the detail