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Mart.) -- Guava (Psidium Guajava L.) -- Watermelon (Citruluslanatus) -- Pomegranate (Punica Granatum) -- Corozo (Bactris Guineensis) -- Acerola (Malpighia Punicifolia L) -- Gac (Momordica Cochinchinensis) -- Camu-Camu (Myrciaria Dubia) -- Cashew Apple (Anacardium Occidentale).
Annatto (Bixa Orellana L.) -- Grape Seed (Vitis Vinifera L.) -- Olive (Olea Europaea) -- Sweet Potato (Ipomoea Batatas) -- Carrot (Daucuscarota L.) -- Amaranthus (Amaranthus Cruentus) -- Beet Root (Beta Vulgaris) -- Soybean (Glycine Max) -- Tomato (Lycopesicon Esculentum Mill) -- Pepper (Capsicum Annuum) -- Rosa Mosqueta Oleoresin (Rosa Rubiginosa) -- Quercus Resinosa (Pinus Strobus) -- Mengkudu (Morinda Citrifolia) -- Pandan Leaf (Pandanus Amaryllifolius) -- Yerba Mate (Llex Paraguariensis) -- Ginger (Zingiber Officinale Roscoe) -- Turmeric (Curcuma Longa) -- Conclusion -- References -- Drop Formation of Pressure Atomizers in a Low Pressure Environment -- Abstract -- Nomenclature -- Greek Symbols -- Subscripts/Superscripts -- Introduction -- Concept -- Drop Formation Theory -- Drop Shape -- Atomization Mechanism -- Spray Characteristics -- Drop Characteristics -- Experiment -- Experimental Test Rig -- Experimental Procedure -- Uncertainty Analysis -- Results and Discussion -- Drop Size -- Drop Velocity -- Spray Angle -- Drop Distribution Factor -- Drop Shape Chart -- Conclusions -- References -- Spray Drying: The Synthesis of Advanced Ceramics -- Abstract -- 1. Introduction -- 2. Spray Drying Equipment Description -- 3. Overview of Some Ceramic Systems Synthesized by Spray Drying -- 3.1. Macroporous Cu-Mg-Al Mixed Oxides -- 3.2. Lead-Free Ferroelectric Ceramics -- 3.3. Yttrium Aluminum Garnet (YAG) -- 3.4. -Alumina ((-Al2O3) -- 4. Experimental -- 4.1. Cu-Mg-Al Mixed Oxides -- 4.1.1. Synthesis of Latex Template -- 4.1.2. Preparation of Macroporous Spray Dried Powders -- a) LDHs Precursors Preparation -- b) Macroporous Mixed Oxides Preparation -- 4.1.3. Powders Characterization -- 4.2. Lead-Free Ferroelectric Ceramics -- 4.2.1. The Powders Synthesis -- 4.2.2. Characterization of Synthesized Powders. 4.3. Synthesis and Characterization of Yttrium Aluminum Garnet (YAG) Powders -- 4.4. Synthesis and Characterization of -Alumina Powders by Metal-Organic Precursor -- 5. Review of Most Prominent Results of the Investigated Ceramics -- 5.1. Cu-Mg-Al Mixed Oxides -- 5.2. Lead-Free Ferroelectric Ceramics -- 5.3. Yttrium Aluminum Garnet (YAG) Powders -- 5.3. -Alumina Powders by Metal-Organic Precursor -- Conclusion -- References -- Control of Atmospheric Plasma Spray Process: How to Correlate Coating Properties with Process Parameters? -- Abstract -- 1. Introduction -- 2. Principle of Atmospheric Plasma Spray -- 3. Process Parameters -- 3.1. Feedstock Material Parameters -- 3.2. Powder Injection Parameters -- 3.3. Kinematics Parameters -- 3.4. Parameters Relative to the Coating-Substrate Interaction -- 3.5. Environmental Parameters -- 3.6. Energetic Parameters -- 4. Arc Root Fluctuations and Instabilities -- 5. Electrode Erosions -- 6. On-Line Process Control -- 6.1. Measurement Apparatus -- 6.2. New Process Control Concept -- 7. OUTLINE -- References -- Liquid Flow Structure in Pressure Swirl Sprays: Study of Droplet Collision Phenomena -- Abstract -- Introduction -- Experimental Facility -- Study and Analysis Method -- Spray Formation and Atomization Quality -- Analysis of the Spray Structure -- Analysis of Droplet Collision Phenomena -- Conclusion -- References -- Modeling Aspects of the Injection of Urea-Spray for NOx Abatement for Heavy Duty Diesel Engines -- Abstract -- Nomenclature -- Variables - Latin Letters -- Variables - Greek Letters -- Superscripts and Subscripts -- Dimensionless Numbers -- 1. Introduction -- 1.1. Decomposition of Urea -- 1.2. By-

Product Formation -- 1.3. Wall Effects -- 2. Modeling -- 2.1. System Description -- 2.2. Eulerian-Lagrangian Spray Modeling -- 2.2.1. The Exhaust Gas Flow Field.
2.2.2. The Droplet Equation of Motion -- 2.2.3. The Aerodynamic Force -- 2.2.4. Other Forces -- 2.2.5. Final Equation of Motion for the Droplet -- 2.3. Sub-Models to the Droplet Equation of Motion -- 2.3.1. The Droplet Drag Coefficient -- 2.3.2. Turbulent Dispersion -- 2.4. UWS Evaporation -- 3. Results and Discussion -- 3.1. Simulation Conditions -- 3.2. Spray Uniformity Results -- 3.3. Decomposition Efficiencies -- 4. Conclusions -- References -- Processing and Particle Characterization of Nanopowders by Spray Pyrolysis Route -- Abstract -- 1. Introduction -- 2. Spray Pyrolysis -- 2.1. Ultrasonic Spray Pyrolysis -- 2.2. Two-Fluid Type Spray Pyrolysis -- 2.3. Plasma Assisted Spray Pyrolysis -- 2.4. Flame Type Spray Pyrolysis -- 3. Preparation and Characterization of Oxide and Metal Powders by Ultrasonic Spray Pyrolysis -- 3.1. Metal Powders for LTCC -- 3.2. Oxide Powders -- 3.2.1. BaTiO3 Powders for Dielectric Ceramics -- 3.2.2. LiMn2O4 Powders for Lithium Ion Battery -- 4. Preparation of Oxide Nanopowders by Plasma-Assisted Spray Pyrolysis -- 5. Preparation and Characterization of LiFePO4 Cathode Powders by Two-Fluid Type Spray Pyrolysis -- 6. Mass Production and Characterization of Cathode Powders by Flame Type Spray Pyrolysis -- 7. Summary -- References -- Thickness Evolution in Spray Pyrolytically Deposited Fluorine Doped Tin Dioxide Films -- Abstract -- 1. Introduction -- 2. Experimental Procedure -- 3. Results and Discussion -- 3.1.1. Orientational Properties of Set A Films -- 3.1.2. Orientational Properties of Set B Films -- 3.1.3. Orientational Properties of Set C Films -- 3.2. Morphological Features -- 3.3. Electrical Properties of Set A, Set B and Set C Films -- Conclusions -- References -- Flamelet Equations for Spray Combustion -- Abstract -- Index.

Sommario/riassunto

In this book, the authors gather and present topical research in the study of the types, technology and modeling of sprays. Topics discussed include charged-spray technologies and their application in technology; spray drying to produce dried foods and vegetables; spray drying in the ceramic industry; atmospheric plasma spray; liquid flow structure in pressure swirl sprays and modeling a water-urea spray including mass and heat transfer.