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Sol-Gel Auto-Ignition Synthesis: Overview of Some Recent Results

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ABSTRACT

State-of-the-art of sol-gel auto-igniting synthesis (SAS) of ceramic nano/submicron oxides powders and multi-components oxides powders are reviewed in this work. The systems of nitrate-urea mixture and citrate sol-gel are discussed. The principle of SAS, the reaction mechanism, and the effects of process parameters on the powder characteristics are described. The main applications and prospects of SAS are discussed.

Keywords: *sol-gel autoigniting synthesis (SAS), nanomaterials, advanced ceramics, complexant.*