

## **ZIRCONIA MIXED METAL OXIDE NANOPARTICLES FOR THERMAL BARRIER COATINGS: SYNTHESIS AND CHARACTERIZATION: A REVIEW**

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### **ABSTRACT**

*For the synthesis of zirconia mixed metal oxide nanoparticles, various synthetic routes have been used. The various synthetic methods, as well as other parameters such as concentration, pH, and the type of precursor used, aid in the creation of zirconia mixed metal oxide nanoparticles with various physicochemical properties. This paper discusses the various synthetic routes of sol-gel, hydrothermal, and co precipitation for the formation of zirconia mixed metal oxide nanoparticles from zirconia and other metal oxides, as well as the physicochemical properties and characterization techniques of the synthesised zirconia mixed metal oxide nanoparticles.*

**KEYWORDS:** *Synthesis of Zirconia, Metal Oxides, Metal Oxide Nanoparticles*

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