Development of materials for turbine coatings

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The objective of this work was investigate the niobia addition like codoped in ceramic coatings to decrease the thermal conductivity and mechanical properties of the coatings. In this article were showed results of the phases presents analysis by X Ray Diffraction from zirconia powder mixture with content of 5-10 wt% yttria and 5-25 wt% niobia sintered to 1700 °C for 1 hour and the microstructural characterization of the samples. The results show the viability in the utilization of this rote to obtain the monophase structure.