

**Conditioning of the Particulate
Raw Materials for Synthesis of
Ceramic no Oxide Powders**

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One of the most important step in the powders synthesis is concerned to the conditioning of the raw materials. This is specially important in the diffusion process when the synthesis involves different particulate solids. The intrinsic heterogeneity of this system certainly will have some influence on the reaction efficiency. This work shows a systematic study of the influence of the conditioning process employed in the synthesis of aluminum nitride and silicon nitride. The mixtures containing carbon and alumina or silica were used as raw materials. After blending operation, the interaction between the particles were improved by the pelletizing process. The influence of the mixer equipment, the time of blending and the humidity of the mixture in the homogeneity of the system were observed by chemical analysis. The pellets obtained were evaluated by densities, porosity and mechanical resistance results and scanning microscopy analysis.