

INFLUENCE OF GRAIN SIZE ON TE - PROPERTIES

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Experiments of mechanical alloying of filled and unfilled skutterudites have been performed under various ball milling parameters in order to elucidate formation and/or decomposition of unfilled (CoSb₃) and filled skutterudites such as MM_x(Fe,Co,Ni)₄Sb₁₂, where MM stands for mischmetal. X-ray techniques have been developed to evaluate the crystallographically undisturbed regions, which in many cases are significantly different than the real size of particles obtained. The influence of oxidic particles and of cold- and hot-compaction parameters on the grain size and the thermoelectric properties will be discussed.

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