

Synthesis Thermoelectric Material Mg_2Si by Quartz Tube Vacuum Furnace from Starting Mg Powder and SiO_2 Rice Husk

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In this work, magnesium silicide (Mg_2Si) compounds were prepared by solid state reaction with sintering in quartz tube vacuum. Ball milling process is used in the mixture of magnesium (Mg) powder and pure silica obtained from thermal decomposition of rice husks. After that, the powder sample were sintered at $650^\circ C$ for 60, 120 and 180 minutes in quartz tube vacuum with argon atmosphere. The XRD patterns show the peak of Mg_2Si and MgO was dominant with all conditions. Subsequently, the chemical process to get rid of MgO.

Summary

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