

# Influence of mineralizer concentration on the morphological and electrical properties of PZT synthesized by Hydrothermal process

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## Abstract

Pb(Zr<sub>0.52</sub>Ti<sub>0.48</sub>)O<sub>3</sub> ceramics were prepared by hydrothermal process at various conditions such as reaction temperature and concentration of mineralizer. PZT ceramics were formed above 180°C for 2 hours reaction using 5~30M KOH solution as a mineralizer, but reaction condition was different by starting materials. By increasing the KOH concentration, the particle size of the PZT powders tended to be increase. Dense and compositionally homogeneous PZT ceramics were obtained by sintering at 1250°C. It can be seen that K doped PZT ceramics has much higher Q<sub>m</sub> than undoped PZT ceramic.