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Synthesis of miserite glass-ceramics by controlled crystallization heat treatment

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In this study, we synthesized glass-ceramics based on miserite system. The composition and heat treatment were studied for their effect on the formation of the crystalline phases and on the resulting mechanical properties, such as transmittance over the visible spectra, hardness, fracture toughness, and bending strength. The amount and shape of the miserite crystals were examined by XRD, SEM, and DTA. The optimum processing conditions were determined from the relation between the properties and miserite phase of specimens.

Biography

Young Ju Song has completed her undergraduate degree in materials engineering Soonchunhyang University in Korea. She is currently majoring in ceramics in her master's degree. She studies ceramic materials for various applications. Her interested field of study is the development of new materials with superior mechanical properties.

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