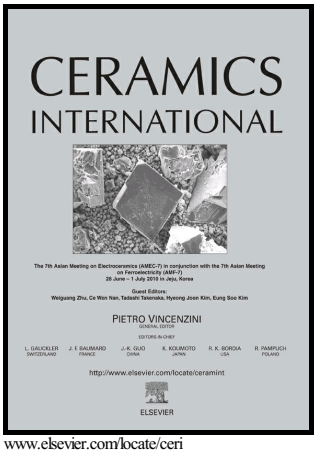

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Graphitization of phenolic resins for carbon-based refractories

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Abstract

The chemical resistance and thermo-mechanical properties of refractories bonded with resole or novolak resins depend on the presence of crystalline carbon phases (preferentially with features close to graphite ones) in their compositions. Although thermosetting resins are commonly classified as non-graphitizing carbon sources, many efforts have been made in recent years in order to find effective routes to induce the *in situ* graphitization of such components in refractory products during service. This work evaluates the role of processing parameters (mixing, curing and