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**On Glass Formation in the TiB₂-Containing CaO-Al₂O₃-SiO₂
System Prepared by Self-Propagating High-Temperature
(Combustion) Synthesis**

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Combustion synthesis and glass formation have been studied in the TiB₂-CaO-Al₂O₃-SiO₂ system where the reacted product consisted of a solid crystalline TiB₂ phase embedded in a CaO-Al₂O₃-SiO₂ matrix. The addition of silica (SiO₂, quartz) has led to a reduction in both the combustion temperature and wave velocity, formation of Gehlenite (Ca₂Al₂Si₇) at the smaller silica content and promotion of the glass phase. Increasing the content of silica resulted in an enhanced glass formation and in the suppression of other crystalline phases. A pure glass matrix was obtained for all compositions in the range from Ca₁₂Al₇O₃₃ to CaAl₂O₄ compounds provided an adequate amount of silica was added.