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The advantages of ceramic membranes are numerous and especially long life time, higher flux, smaller foot print are some of the main characteristics. Furthermore, SiC membranes offer extreme durability with respect to chemical and temperature resistances compared to polymeric membranes and alumina based ceramic membranes. This means that SiC membranes can be used in applications that have been too difficult for existing membranes, as well as improve the performance of existing systems. The main obstacle to growth for ceramic membranes, is the perception in the industry that they are expensive.

With these premises in mind, here we have studied the aqueous colloidal processing of powder mixtures of SiC and liquid-phase sintering additives. The study involves zeta potential of the starting powder, and the election of the best condition to prepare the suspension for the membranes. The resulting membrane were sintered with different temperatures, and different holding time. These membranes are in the range of ultrafiltration with lower porosity and good joining between membrane and substrate.