SUPPLEMENTARY MATERIAL

In order to characterize the porosity of the undoped xerogels, nitrogen sorption isotherms were recorded at 77.35 K using a Quantachrome porosimeter Autosorb 1-LP-MP, after an outgassing process of several hours at 150°C under secondary vacuum. The shape of the isotherms and the type of hysteresis loops were interpreted using the model of Brunauer[1] and the correlations of De Boer respectively[2]. Specific surface area was determined by the Brunauer–Emmett–Teller (BET) method[3]. The total pore volume was determined at P/P_0 = 0.99938. The pore size diameter and distribution were calculated according to the Barrett–Joyner–Halenda (BJH)[4] model. The pore size distribution is thus given by the derivative of the desorbed volume as a function of the pore diameter.

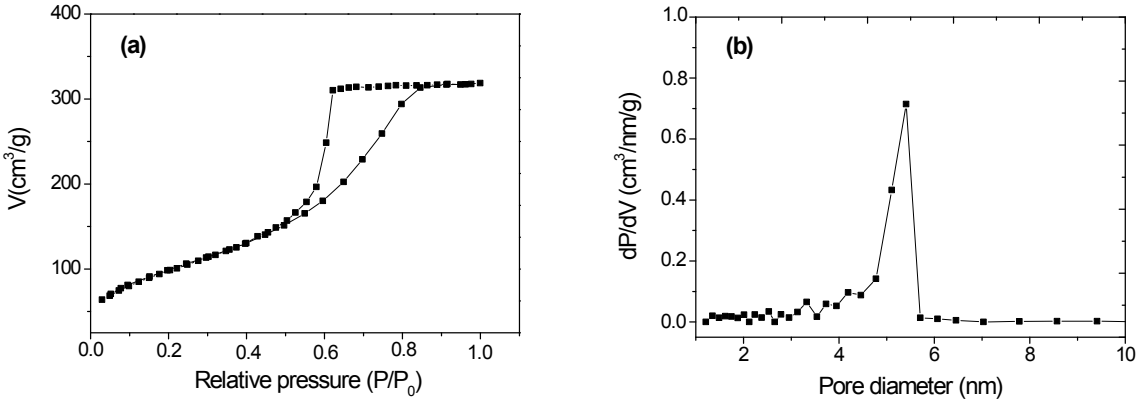

Figure 1S. (a) N_2-sorption isotherm and (b) BJH pore size (diameter) distribution of the undoped silica xerogel stabilized at 850 °C.

The nitrogen adsorption-desorption isotherm profile of undoped silica xerogel heat-treated at 850°C (Figure 1S (a)) corresponds to a type IV curve, which reveals a mesoporous structure. According to the IUPAC classification[5], the hysteresis loop has a H2 character, which matches mesoporous solids with pore inter-connectivity. Thus, the undoped silica xerogel exhibited interconnected pores of mean diameter 5.8 nm with a narrow size distribution, deduced by the BJH model (Figure 1S (b)). The total pore volume is 0.49 cm^3g^{-1}. The specific surface area was determined by the BET method and was found to be around 360 m^2g^{-1}.

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