**Synthesis of New silica xerogels based on bi-functional 1,3,4-Thiadiazole and 1,2,4-triazole adducts**

Afifa Hafidh(a)\*, Fathi Touati(b), Ahmed Hichem Hamzaoui(c)

**(a)** University of Tunis, Department of Chemistry, Materials and Environment Laboratory, Preparatory Institute for Engineering Studies of Tunis, Tunisia. Afifa.hafidh@ipeit.rnu.tn

 **(b)** Laboratory of Materials Treatment and Analysis, National Institute for Physico-Chemical Research and Analysis, Technopole Sidi Thabet – 2020 Tunis, Tunisia.

**(c)** Useful Material Valorization Laboratory, National Center for Research in Materials Sciences, CNRSM, Technopole Borj Cédria, BP 73, 8027 Soliman, Tunisia

**Supporting information**





**(c)**

**Figure S1** FT-IR spectra of xerogels **HM1** **(a)**, **HM2** **(b)** and **HM3** **(c)**





**Figure S2** 29Si CP MAS NMR spectra of **MH1 (a)**, **MH2 (b)** and **MH3 (c)**





**Figure S3** 13C CP MAS NMR spectra of **(a)** **MH1**, **(b)** **MH2** and **(c) MH3**

  

**(c)**

**(b)**

**(a)**

**Figure S4** SEM images of **HM1** **(a)**, **HM2** **(b)** and **HM3** **(c)**.

  

**Figure S5** EPR spectra of hybrid xerogels **HM1 (a)**, **HM2 (b)** and **HM3 (c)**