Supporting Information for

Improved lithium cyclability and storage in a multisized pore ("differential spacers") mesoporous SnO_2

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<u>Supporting information 1</u>: N_2 adsorption-desorption isotherms for SnO₂-M at 350 ^{0}C and 400 ^{0}C respectively



Supporting information 2: TEM images of various samples at low resolution showing absence of any special particle morphology. Only randomly arranged particles are observed.



Supporting information 3: Thermogravimetric analysis (TGA) of before sintering sample and sintered samples. The sample sintered at 500 0 C shows the least weight loss among all the samples. However, based on BET and galvanostatic cycling 500 0 C was not selected as the appropriate sintering temperature for the work presented in the manuscript. The sample sintered at 350 0 C was found to be most suitable and all characterization with respect to this are presented in the manuscript. The sample sintered at 500 0 C showed very poor cyclability due to lower surface area due to loss of mesoporosity. The particles probably possess a solid-like morphology.