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(54) Title: PARTICULATE POROUS FRAMEWORKS

(57) Abstract: The present invention is in the field of metal-ion batteries, in particular anode materials for lithium-ion batteries. A process is provided comprising the steps of: (a) determining an effective size σ of a silicon precursor; (b) providing a population of optimised particulate porous frameworks comprising micropores and/or mesopores and having an optimised pore structure for the silicon precursor, the optimised pore structure comprising: a PD_{30} pore diameter of 1.4σ - 3.0σ , a PD_{90} pore diameter of 5.0σ - 14.0σ , and a pore diameter span (PD_{90} - PD_{10}) of 4.0σ - 12.0σ , wherein "effective size σ " refers to the value σ in the Lennard-Jones potential for the silicon precursor; wherein "PDn pore diameter" refers to the pore diameter below which n% of the total micropore and mesopore volume is found.