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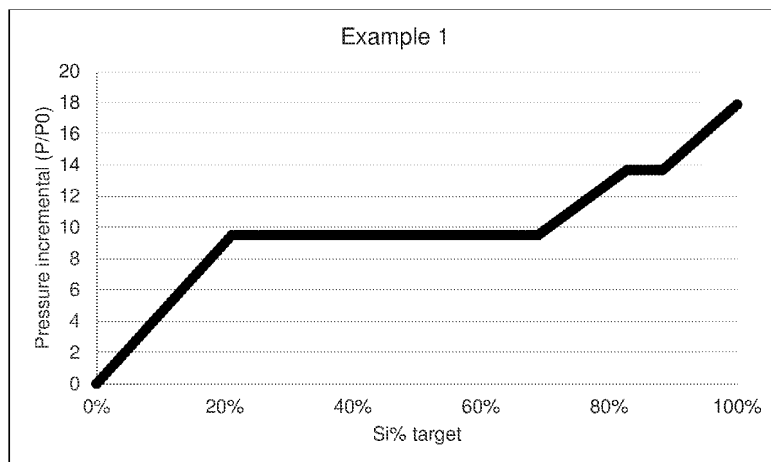


Fig. 1

(57) Abstract: The invention relates to a process for preparing composite particles, the process comprising the steps of: (a) providing a plurality of porous particles in a reactor; (b) contacting the plurality of porous particles with a silicon precursor gas at conditions effective to cause deposition of silicon in the pores of the porous particles; (c) measuring the composition of an effluent gas withdrawn from the reactor; (d) detecting a change in the composition of the effluent gas; (e) adjusting at least one gas outlet of the reactor to adjust the flow rate of the effluent gas to increase the pressure in the reactor in response to the detected change in the composition of the effluent gas and continuing deposition of silicon in the pores of the porous particles at the adjusted pressure; to provide composite particles comprising a porous particle framework and silicon within the pores of the porous particle framework; wherein the silicon precursor gas is introduced into the reactor continuously during steps (b) to (e).

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