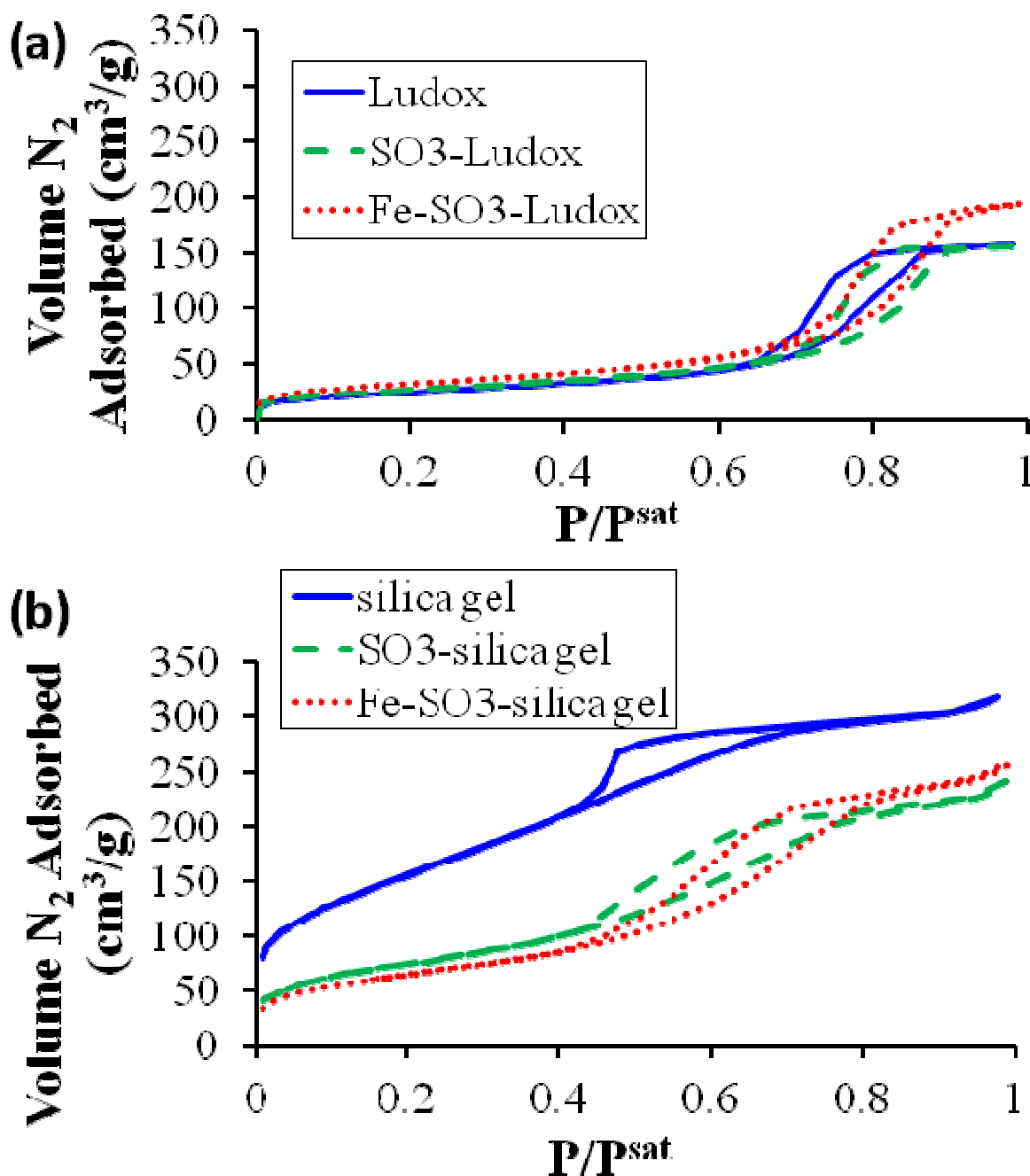


Supporting Information Figure:

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**Figure S1.** Nitrogen sorption isotherms (77 K) for sulfonate-functionalized silica and unfunctionalized silica. (a) Sulfonation of Ludox surfaces does not change the surface area or pore structure. Synthesis of nanoparticles (NP) increases microporous and macroporous surface areas, corresponding to sorption of nitrogen between non-porous NPs and sorption of nitrogen on surface of non-porous NPs. (b) Sulfonation of silica gel narrows pores of all sizes. Synthesis of nanoparticles (NP) decreases micropores, corresponding to pore blockage, and increases macroporous surface area, corresponding to sorption of nitrogen on surface of non-porous NPs.