



Hollow silica nanoparticles and method of making

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Summary

The University of North Dakota has a technology that includes hollow silica nanomaterials (HSNs) and a fabrication method thereof. The HSNs can be produced by adding polyvinylpyrrolidone (PVP) and an alcohol to form a mixture. Water, sodium citrate, and a silicon-containing compound are then stirred in. Finally, a catalyst is included, and the hollow silica nanoparticles are formed. The HSNs have a generally cross-sectional area with a first end of about 235 nm in diameter and a second end of about 64 nm in diameter.

Advantages

- Various applications including bioanalysis, drug delivery, active metal encapsulation, and nano-reactors for catalysis
- Attractive synthetic targets with hydrophobic nature
- Easy colloidal suspension formation, excellent biocompatibility, and surface functionalization

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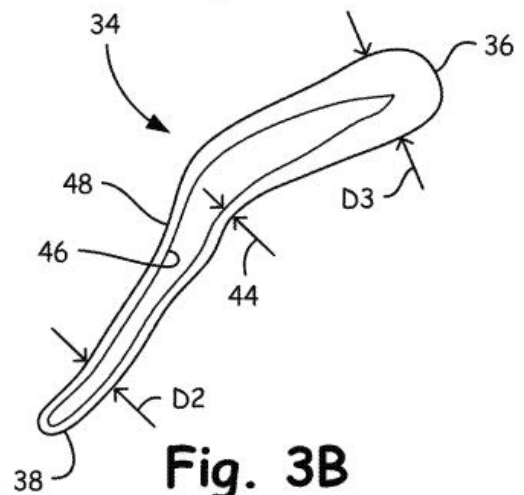


Fig. 3B