Supporting Information

# Respiratory adsorption of organic pollutants in wastewater by superhydrophobic phenolic xerogels

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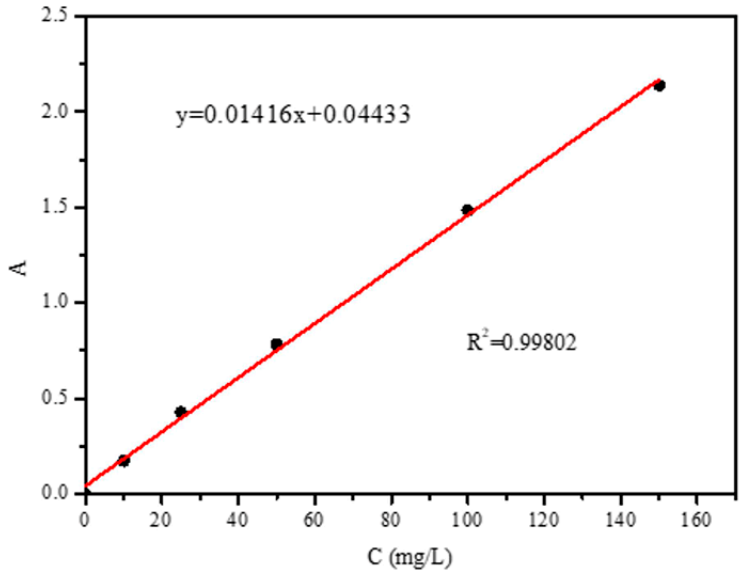


Figure S1. Standard curve of phenol aqueous solution.

Table S1. Properties of xerogels with different solvent systems

| Solvent | Catalyst | Phenomenon and Conclusion |
|---|---|---|
| Ethyl acetate | HCl | Poor compatibility with resin, milky white solution, insufficient cross-linking, heavy granularity of gel, inelasticity |
| 2-Methoxyethanol | HCl | Good compatibility with resin, light yellow transparent solution, white gel, slight granularity, large gel shrinkage |
| 1,2-Dimethoxyethane | HCl | Good compatibility with resin, light yellow transparent solution, after adding catalyst for a period of time, only phase separation without gelation, forming a large molecular structure dissolved in the solution |
| Diethylene glycol | HCl | Good compatibility with resin, light yellow transparent solution, gel first and then phase separation, no obvious particles, no elasticity and brittleness |
| Ethylene glycol /1,2-Dimethoxyethane | HCl | First phase separation and then gelation, and with the increase of the amount of ethylene glycol dimethyl ether, the gelation time after phase separation will be prolonged. The more the proportion of ethylene glycol, the greater the elasticity, the more the proportion of ethylene glycol dimethyl ether, the more obvious the system shrinks, and the stronger the graininess. |
| Ethylene glycol / Diethylene glycol | HCl | The gel is first separated and then gelled. The higher the proportion of ethylene glycol, the softer and more elastic the gel. With the increase of the content of diethylene glycol, the elasticity of the gel becomes smaller and brittle. |
| Ethylene glycol | HCl | Good compatibility with resin, light yellow transparent solution, wet gel is white, no obvious graininess, first phase separation and then gel, with good elasticity |
| Ethylene glycol | P-toluenesulfonic acid | The organic acid system gel is relatively fine, the pore size is small, and there is no elasticity |
| Ethylene glycol | Organic and Inorganic Acid Compounding | The elasticity is smaller than that of the inorganic acid system and gradually decreases with the increase of the proportion of organic acid |