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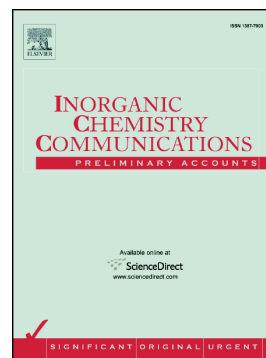
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Porous Aromatic Framework as an efficient adsorbent in removing phenol from water

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Phenol is one of the most important feedstocks in the manufacture of resins, explosives, medicines, pesticides and food additives, and can also be used in the production of antimicrobials and anti-corrosives[1-3]. However, it is also volatile, soluble in water and toxic to biological organisms. As a by-product of petroleum refinement and coal gasification operations, the wastewater containing phenol is unavoidably produced during these industrial processes[4]. Since it's difficult of being degraded in nature, its uptake by biological processes, even at low levels of concentration, many organisms may be affected, especially aquatic organisms[5, 6]. Such wastewater distributes has a wide area of distribution and serious environmental problems result when phenol is directly discharged into the environment[7]. Phenol is also poisonous to humans by being absorbed through the skin or inhaled, let alone being ingested. Key organs such as the spleen, pancreas and kidneys, gradually are injured by chronic exposure to phenol. Acute poisoning by phenol can cause kidney malfunction, lung edema and even circulatory system failure. Acute poisoning can cause kidney malfunction, lung edema and even circulatory system failure[8, 9]. In recent years, much more attention has been paid to resolving the problem of phenol pollution.

There are several approaches developed for phenol removal, including

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