

# Aromatic Substitution in Water by Using a Polymeric Amphiphilic Additive

Category

Polymer-Supported Synthesis

Key words

aqueous media

aromatic substitution

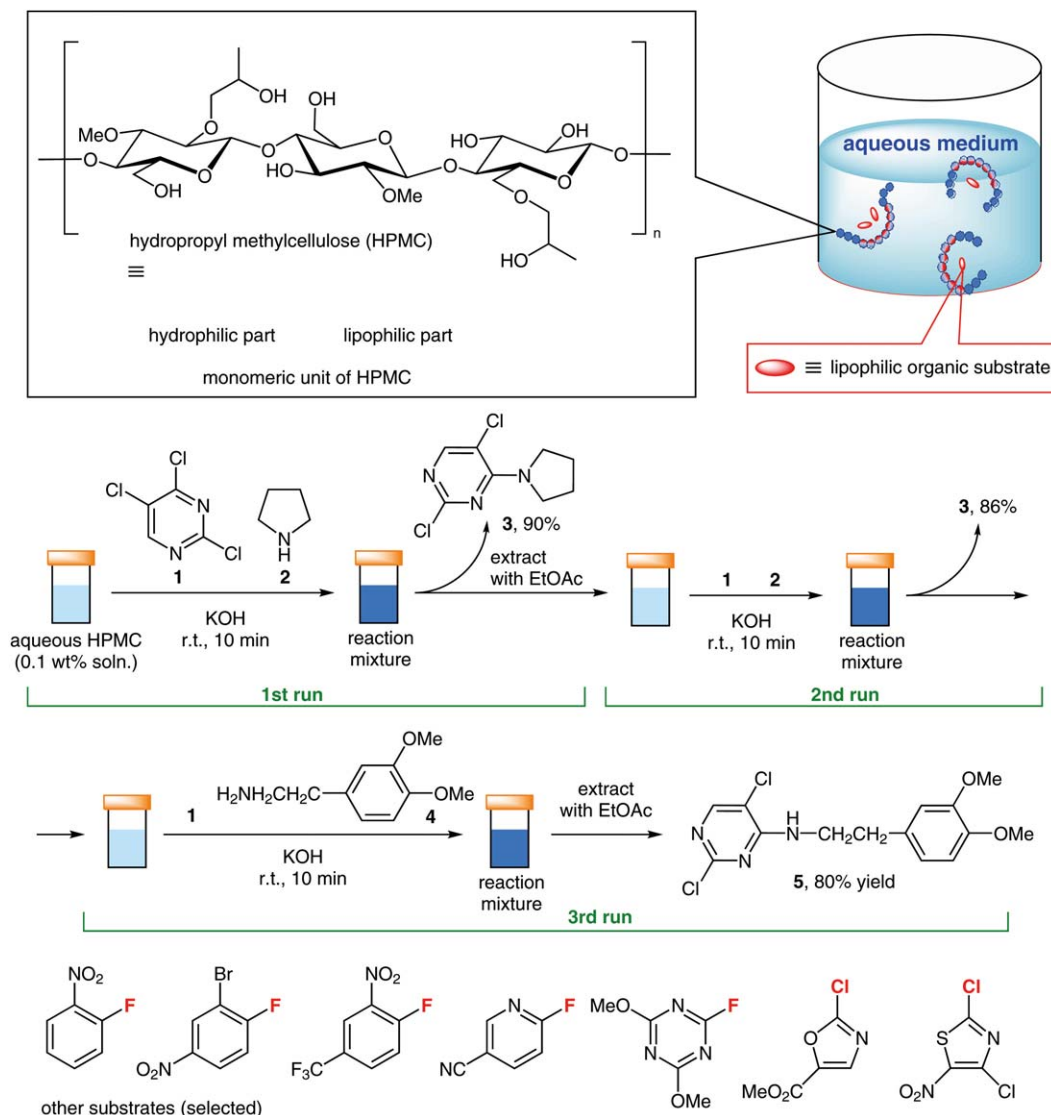
aryl halides

polysaccharides

aromatic amination

$S_NAr$  reaction

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**Significance:**  $S_NAr$  amination reactions of various aryl fluorides or chlorides with amine nucleophiles was achieved in water in the presence of amphiphilic hydroxypropyl methylcellulose (HPMC). The aqueous HPMC phase could be reused in consecutive runs.

**Comment:** A lipophilic reaction pocket formed by folding of HPMC in water promotes the organic reaction.  $S_NAr$  reactions with thiols or a benzylic alcohol were also examined.