

# ORTHO-SELECTIVE ELECTROPHILIC SUBSTITUTION/ADDITION TO PHENOLATES

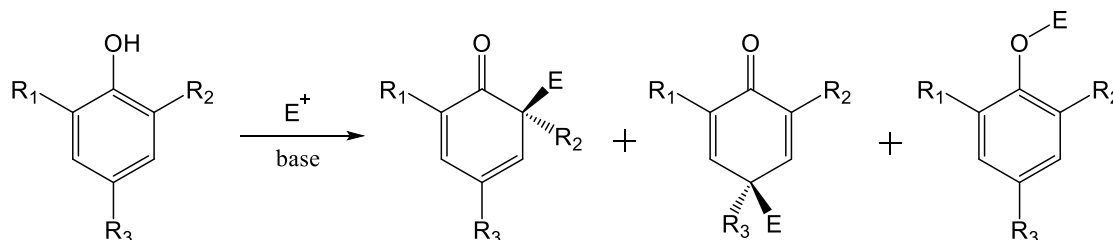
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Phenols are easily available starting material for synthesis of complex molecules. The dearomatization of aromatic molecules, as phenols, is interesting method which can be applied in various synthesis routes. At the same time, cyclohexadienone derivatives, which are produced by dearomatization of phenols, are chemically active molecules and are popular structure motifs in various natural compounds.

The most studies about dearomatization of phenols are focused on oxidative conditions, where the most common one is oxidative hypervalent iodine-mediated dearomatization[1]. Some studies have reported nucleophilic non-oxidative dearomatization[2-3]. The electrophilic addition on phenols is rarely used and only few studies can be found where alkyl halides are used as electrophile.



*Scheme 1. Electrophilic addition to substituted phenols.*

In this study differently substituted phenols and resorcinols were used in electrophilic alkylation of phenolates to get selective addition reaction. Also, different conditions were tested to achieve better selectivity and higher yields of the addition products.

## References

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2. R. J. Phipps, F. D. Toste, 2013, *J. Am. Chem. Soc.*, 135, 1268–71
3. S. Rousseaux, J. García-Fortanet, M. Angel Del Aguila Sanchez, S. L. Buchwald, 2011, *J. Am. Chem. Soc.*, 133, 9282–5