

# Aromatic diazonium salts as coupling reagents\*

## The innovation

The chemical and pharmaceutical industry is constantly exploring to find new methods or reagents for an easier and cheaper way of synthesizing complex molecules and structures. In the course of this, a phenolic aggregation is an important unit of molecule agents.

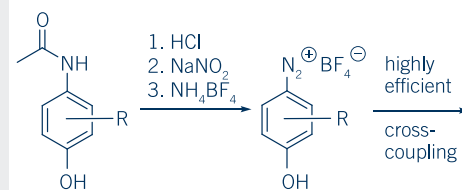
This invention is an innovative technique for preparing and isolation of highly reactive aromatic diazonium salts, especially free phenol derivatives. The method allows to extant manageably formed substances in a short reaction sequence in avoidance of toxic compounds.

Being conducted in a one-pot reaction, the cheap process with diazonium salts in metal-catalysed cross-couplings without

protection of reactive hydroxyl functions shows many advantages for an industrial description of polymers, insulating materials, fire extinguishing substances, colorants and particularly interstages of medicinal remedies.

The method is based on aromatic amides which are transferred with a diazotization reagent, after an acid hydrolytic cleavage without isolation, into a diazonium compound and finally isolated in a pure form.

By using the innovative vulnerable phenolic diazonium salts, charges are reduced due to economization of synthesis steps. Furthermore, the process obtains a conspicuously higher yield.



## Advantages at a glance

- Easy and cheap accessibility and simple separation with high purity
- One-pot reaction
- High stability of all compounds
- High reactivity (at room temperature) especially for metal-catalysed cross-couplings
- No usage of protecting groups

## Keywords

- Fine chemicals
- Colorants and dyers
- Pharmaceutical agents

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## Areas of application

- Production of pharmaceutical ingredients and agents
- Production of chemicals
- Production of colorants and dyers

## Patent status

The invention is filed internationally. The patent portfolio is owned by ZYLUM Beteiligungsgesellschaft mbH & Co. Patente II KG. The basis application was filed in November 2006.



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