

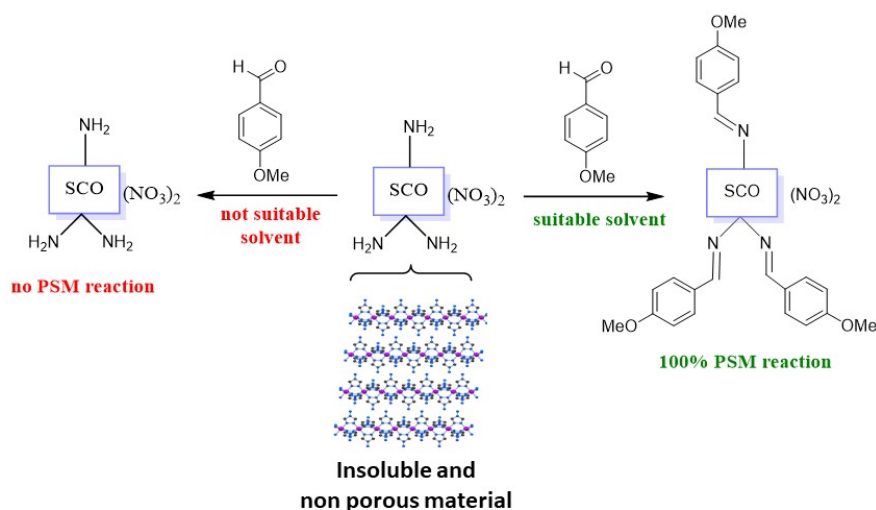
POST-SYNTHETIC MODIFICATION MECHANISM FOR 1-D SPIN CROSSOVER COORDINATION POLYMERS

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The post-synthetic modification (PSM) of different materials, has emerged as an efficient tool to chemically modify an already prepared material with functional groups that could not be obtained by a direct approach. However only a few reports concerning PSM in chain-like iron-triazole spin crossover complexes has been published.

We have previously demonstrate the attractiveness of PSM reactions of the spin crossover complexes $[\text{Fe}(\text{NH}_2\text{trz})_3]\text{X}_2$ with different functional groups [1]. In most cases we also synthesized the evaluated complexes by a direct synthesis (DS) in order to compare them with their corresponding PSM complexes. We have noted that the spin transition properties of the materials depend on the synthesis method used. Here we present a comprehensive study of the influence of the solvent on the PSM on the $[\text{Fe}(\text{NH}_2\text{trz})_3](\text{NO}_3)_2$ spin crossover complex with *p*-anisaldehyde. The use of a suitable solvent such as ethanol results in a complete PSM, where the final crystalline material exhibits a gradual conversion just below room temperature in the other hand when an unsuitable solvent such as toluene was used, either no reaction or very long reaction time is needed, leading to undesired Fe(III) species [2].



[1] a) *Dalton Trans.* **2019**, 48, 16853-16856. b) *Eur. J. Inorg. Chem.* **2021**, 2000-2016

[2] *New. J. Chem.* **2023**, 47, 1488-1497.