Efficient and Convenient Procedure for Protection of Hydroxyl Groups to the THP, THF and TMS Ethers and Oxidation of these Ethers to their Aldehydes or Ketones in [BPy]$FeCl_4$ as a Low Cost Room Temperature Ionic Liquid

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Alcohols were converted to the corresponding THP, THF or TMS ethers in high to excellent yields in 1-*n*-butylpyridinium chloroferrate media as a stable and low cost room temperature ionic liquid. In addition, oxidation of these ethers to their aldehydes or ketones without any overoxidation reactions in this ionic liquid was also performed.

Key words: Tetrahydropyranylation, Tetrahydrofuranylation, Trimethylsilylation, *n*-Butypyridinium Tetrachloroferrate