



CATALYTIC PROPERTIES OF NEW HYBRID PERHALIDOMETALLATES

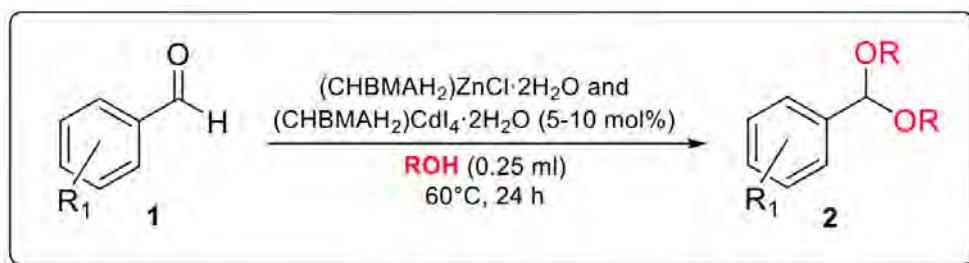
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The new organic-inorganic salts of perhalidometallates^[1] with protonated organic amine cations, $(\text{CHBMAH}_2)\text{ZnCl}_4 \cdot 2\text{H}_2\text{O}$ and $(\text{CHBMAH}_2)\text{CdI}_4 \cdot 2\text{H}_2\text{O}$, have been explored in the acetalization process using various uncommon alcohols,^[2] beyond the common sources used (methanol or ethanol), for the first time in the literature with outstanding results and opening the door to the formation of alternative acetals.



Schema 1. Acetal synthesis using $(\text{CHBMAH}_2)\text{ZnCl}_4 \cdot 2\text{H}_2\text{O}$ and $(\text{CHBMAH}_2)\text{CdI}_4 \cdot 2\text{H}_2\text{O}$

Interestingly, we have selected a battery of alcohols overlooked or scarcely explored in the literature so far for this reaction. Furthermore, although the two catalytic structures shown the same order of reactivity against this great variety of alcohols tested, Cd-based catalyst afforded better results. Besides, the scope of the reaction was further explored, extending our strategy to different substituted aldehydes.

Both catalytic structures exhibited promising activity using different and uncommon alcohols as the unique source of acetalization. This procedure opens the door to explore new sources of acetalization using very accessible and simple alcohols, beyond methanol or ethanol.

References

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