

Structural diversity and reactivity of alkylzinc guanidines

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Zinc complexes supported by monoanionic N,N-bifunctional ligands are receiving considerable attention due to their increasing role in a wide variety of stoichiometric and catalytic transformations.^[1,2] As part of our ongoing efforts to fully elucidate the role of supporting ligands in tuning the reactivity of alkylzinc complexes we selected guanidines as suitable ligands due to their ability to stabilize a variety of different alkylzinc clusters.

Herein we demonstrate the results of our extended investigation concerning both the structure and reactivity of alkylzinc guanidinate complexes. As a result, a considerable number of new products has been isolated and characterized, involving both the alkylzinc species and products of their transformations by reactions with O₂ or H₂O (Figure 1).^[3,4] Presented results pave the way for further developments such as application of alkylzinc species as precursors to nanomaterials.

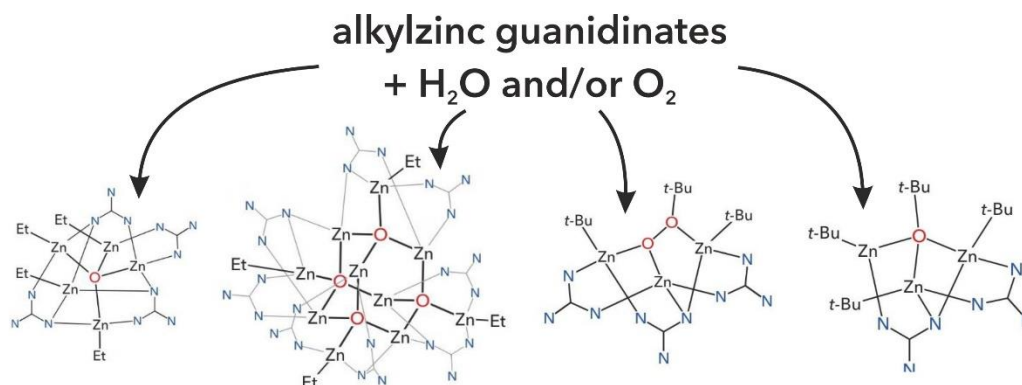


Figure 1. Example products of transformations involving alkylzinc guanidines.

References

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