First insight into the oxygenation of alkylzinc amidinates

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The reactivity of alkylzinc compounds towards molecular oxygen is of longstanding interest driven by both the exploration of the fundamental aspects of (bio)inorganic and organometallic chemistry and the development of new applications for organozinc compounds.[1,2] Amidiniate ligands are interesting stabilizing agents of aklyzinc complexes exhibiting vide variety of coordination modes and providing an additional level of structural tailorability by means of the substituents on N donor centers.[3] Strikingly although a wide range of alkylzinc amidinates has been characterized so far, their oxygenation remains unexplored.

Herein, utilizing an ethylzinc N,N'-diphenylformamidinate (*dipf*) complex $[Et_2Zn_3(dipf)_4]$ as a model system we demonstrated first systematic studies on the oxygenation of alkylzinc complexes supported by amidinate ligands (Fig. 1).

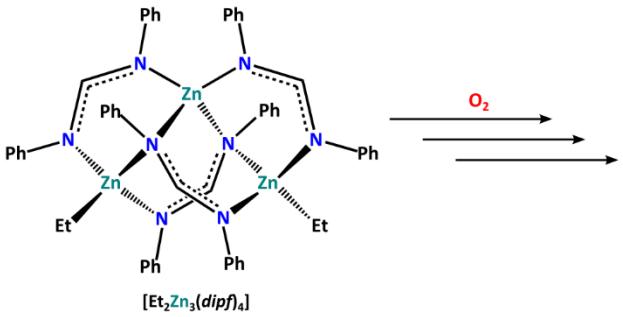

Figure 1. Model alkylzinc amidinate complex $[Et_2Zn_3(dipf)_4]$

References

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[3] F. T. Edelmann, *Adv. Organomet. Chem.* **2008**, *57*, 183C. Name, P. Name, *Journal*, **year**, *vol*, first page (Calibri 10).