



Probing the role of π interactions in the reactivity of oxygen species : a case of ethylzinc aryloxides with different dispositions of aromatic rings toward the metal center.

Autorzy

Łukasz Mąkowski

Karolina Zelga

Rafał Petrus

Dominik Kubicki

Piotr Zarzycki

Piotr Sobota

Janusz Lewiński

Rok wydania

2014

Czasopismo

Chemistry-A European
Journal

Numer woluminu

20

Strony

14790-14799

DOI

10.1002/chem.201403851

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

Ethylzinc derivatives of *ortho*-hydroxybiphenyl and 2,6-diphenylphenol that bear different nuclearity and dispositions of aromatic rings toward the metal center were synthesized and structurally characterized in the solid state and solution. This family of well-defined compounds was examined as a model system for the activation of dioxygen mediated by using complexes that feature lack of a redox-active metal center. Experimental and theoretical studies indicate an essential role in the oxygenation process of intramolecular interactions that involve aromatic subunits. Additionally, novel results for the oxygenation chemistry of alkylzinc compounds, including the isolation and structural characterization of the unique octanuclear aryloxide (hydroxide) compound $\text{Zn}_8(\text{OAr})_8(\text{OH})_6(\text{O}_2)$ with an encapsulated peroxide species, are presented.

Słowa kluczowe

alkyls, dioxygen, O-O activation, pi interactions, structure, zinc

Adres publiczny

<http://dx.doi.org/10.1002/chem.201403851>

Strona internetowa wydawcy

onlinelibrary.wiley.com

Plik został wygenerowany dnia 2026-10-06 16:18:57

Adres w repozytorium <https://old.chem.uni.wroc.pl/pl/repozytorium/sJfogT2>.