

Steric C-N bond activation on the dimeric macrocycle [$\{P(\mu-NR)\}_2(\mu-NR)_2$]

Dimeric cyclophosphazanes [$\{P(\mu-NR)\}_2(\mu-NR)_2$] [$R = tBu$ (1) and iPr (3)] were oxidized with elemental selenium. During these reactions an unexpected C-N bond cleavage and N-H bond formation occurred. Compound 1 produced $P_4(\mu-NtBu)_3(\mu-NH)_3Se_4$ (2) where three tBu groups were lost in the form of isobutylene. In contrast, during the oxidation of the less sterically hindered 3, the resulting product, $P_4(\mu-NiPr)_5(\mu-NH)Se_4$ (4), showed only one substituent loss. Theoretical studies confirmed the steric nature of the driving force underlying the different outcomes.

Fuente de la publicación:

- Shi, Y. X.; Liang, R. Z.; Martin, K. A.; Star, D. G.; Diaz, J.; Li, X. Y.; Ganguly, R.; Garcia, F., Steric C-N bond activation on the dimeric macrocycle [$\{P(\mu-NR)\}_2(\mu-NR)_2$]. Chem Commun (Camb) 2015, 51 (92), 16468-71.

Proyectos relacionado:

- [Desarrollo de nuevas reacciones multicomponentes de isonitrilos](#) [1].

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Links

[1] <http://www.cenits.es/proyectos/estudios-computacionales-reacciones-multicomponentes>