# Steric C–N bond activation on the dimeric macrocycle [{P(μ-NR)}_2(μ-NR)]_2

Dimeric cyclophosphazanes [{P(μ-NR)}2(μ-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 P4(μ-NtBu)3(μ-NH)3Se4 ( 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, P4(μ-NiPr)5(μ-NH)Se4 ( 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].



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