

## 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].

URL de  
origem: <https://www.cenits.es/pt-pt/enlaces/publicaciones/steric-c-n-bond-activation-dimeric-macrocycle-pm-nr-2m-nr-2>

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