

N-Acyl-glutarimides: resonance and proton affinities of rotationally-inverted twisted amides relevant to N–C(O) cross-coupling.

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Resonance energies and proton affinities of *N*-acyl-glutarimides, compared with related twisted acyclic amides of relevance to N–C(O) cross-coupling, are reported. The data demonstrate that amidic resonance in *N*-acyl-glutarimides practically disappears ($E_R < 2.8$ kcal/mol), while, intriguingly, these amides favor *O*-protonation despite significant twist. In some cases, *N*-acyl-glutarimides undergo intramolecular *N*- to *O*-acyl migration, indicative of high capacity as acylating reagents. The understanding provided for the high reactivity of *N*-acyl-glutarimides should facilitate the development of a broadly general N–C(O) amide activation platform.

Adres publiczny

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Strona internetowa wydawcy

<https://www.acs.org/content/acs/en.html>