Solid-Supported Cyclotrimerization Reactions

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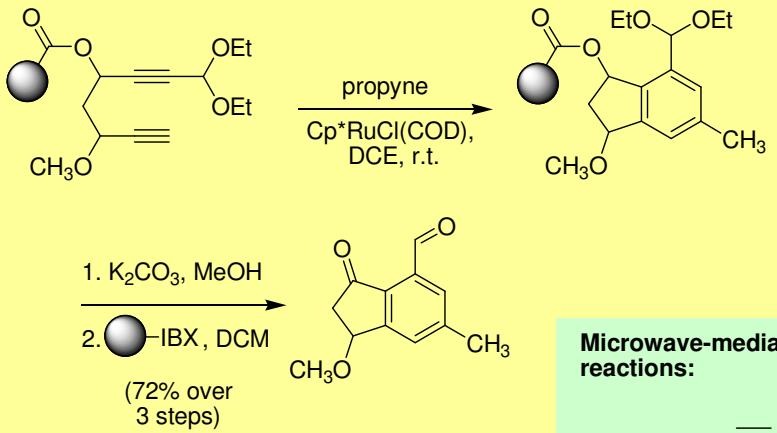
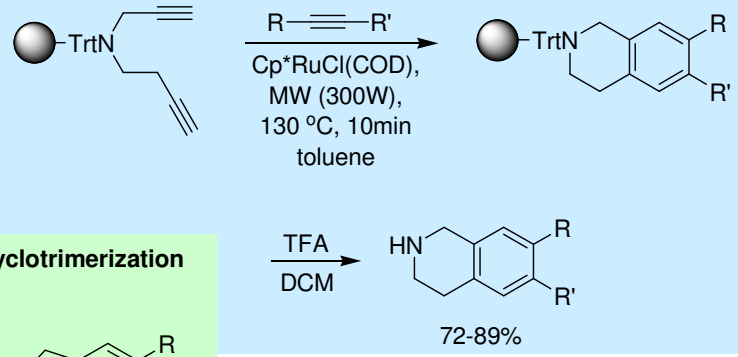
The following key discoveries have been made, which set the stage for further developments towards unifying reaction conditions for [2+2+2] cyclotrimerization chemistry and its application in target directed synthesis and library synthesis:

- *Chemoselectivity issues have been solved through the application of a solid-support.*
- *Reactivity issues have been solved through the application of microwave irradiation.*
- *Regioselectivity issues were addressed through regio-directing groups.*

Synthesis of an indanone natural product via a chemo- and regioselective solid-supported [2+2+2] cyclotrimerization reaction:



Synthesis of tetrahydroisoquinolines via microwave-mediated solid-supported [2+2+2] cyclotrimerization reactions:



Microwave-mediated solid-supported [2+2+2] cyclotrimerization reactions: