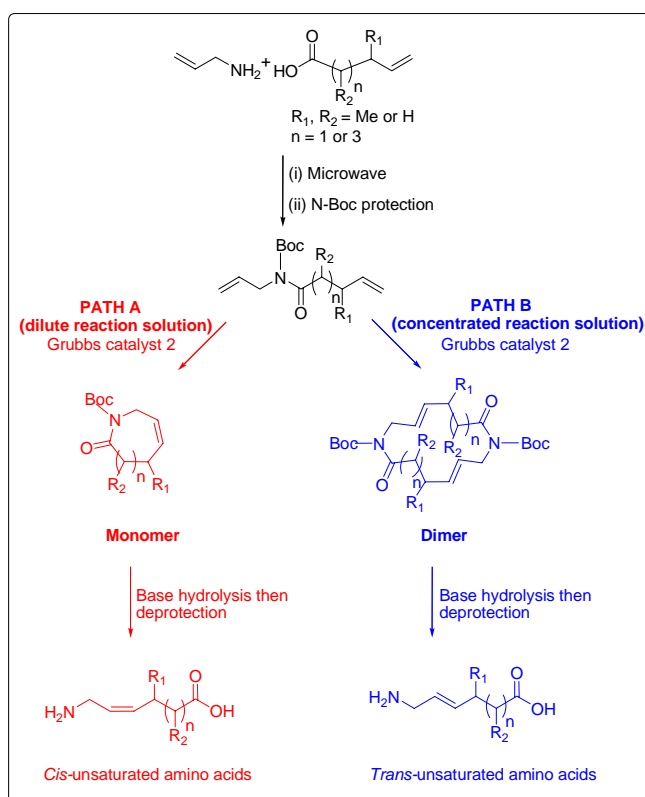


# Synthesis of Novel Unsaturated Amino Acids via Ring Closing Metathesis

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Unsaturated amino acids are an interesting class of compounds as they can be utilised in drug design and development<sup>1</sup>. Our research focuses on developing a methodology which gives convenient access to this class of compounds. The employment of ring closing metathesis (RCM) is a key synthetic step. The synthetic approach includes (1) amide bond formation (2) N-Boc protection (3) RCM and (4) base hydrolysis then deprotection.



Interestingly, monomer and dimer formation in the key RCM synthetic step can be generated in a controlled fashion by varying the concentration of the RCM reaction solution. This in turn gives rise to *cis*- and *trans*-unsaturated amino acid products, respectively, from the same starting materials.

## References:

1. Miller, S. J.; Grubbs, R. H. *J. Am. Chem. Soc.* **1995**, 117, 5855-5856.