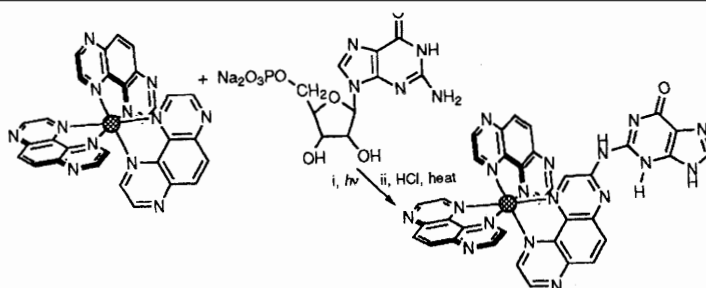


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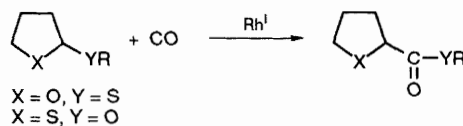
- 915 **Novel Reactions of Nitric Oxide in Biological Systems**

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NO is a free radical having important roles in a variety of physiological and pathophysiological processes. Here, we report a novel reaction between NO and β -carotene, a naturally occurring carotenoid. Using EPR and optical spectroscopy, we have shown that a series of nitroxides are produced with concomitant loss in conjugation of the β -carotene molecule. The rate constant for the reaction is approximately $10^3 \text{ dm}^3 \text{ mol}^{-1} \text{ s}^{-1}$. The results are discussed in the context of potential reactions of NO with other biological conjugated systems.

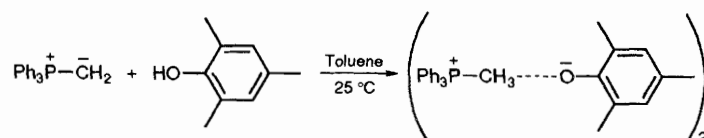
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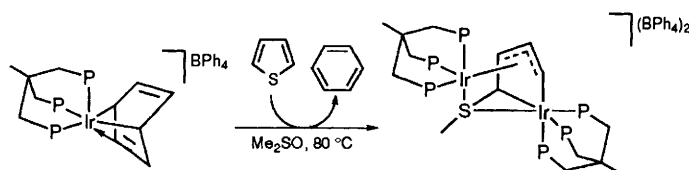
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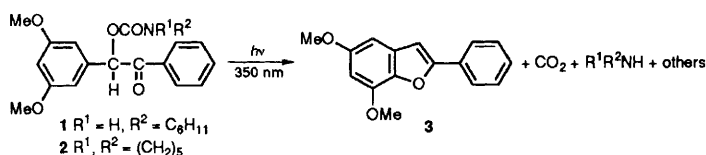
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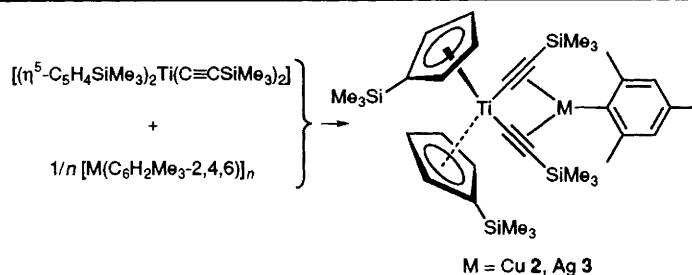
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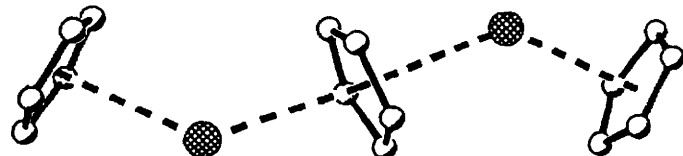
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Maurits D. Janssen, Mathias Herres, Anthony L. Spek, David M. Grove, Heinrich Lang, Gerard van Koten



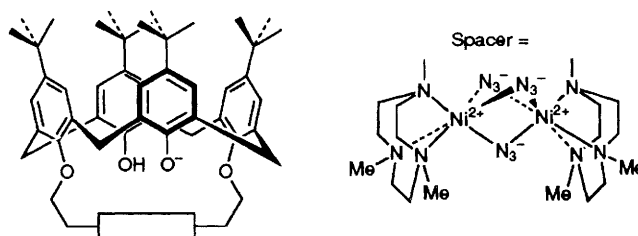
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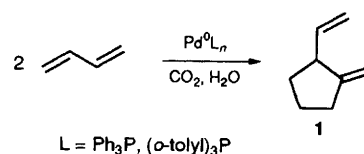
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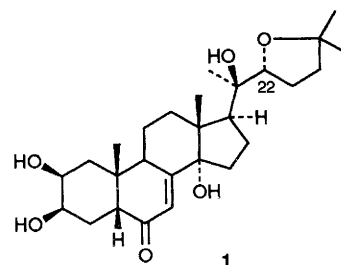
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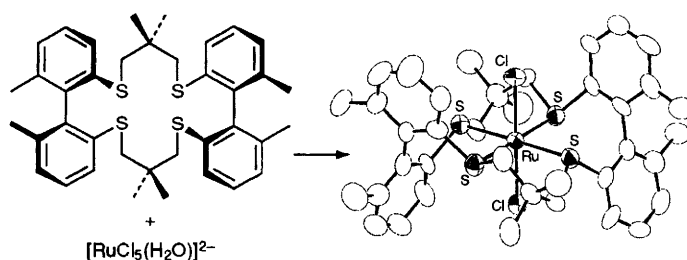
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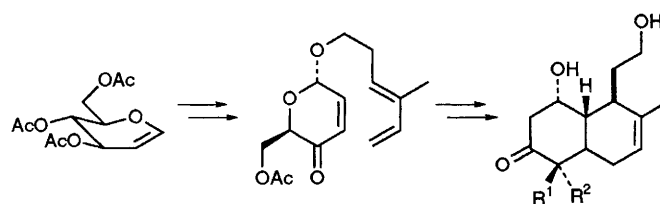
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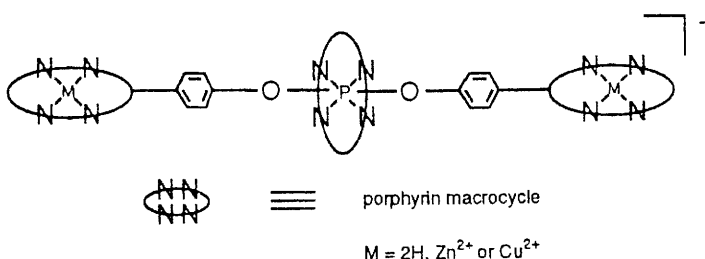
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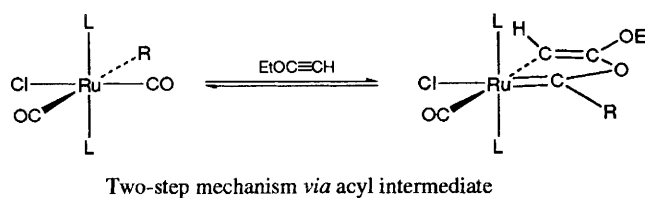
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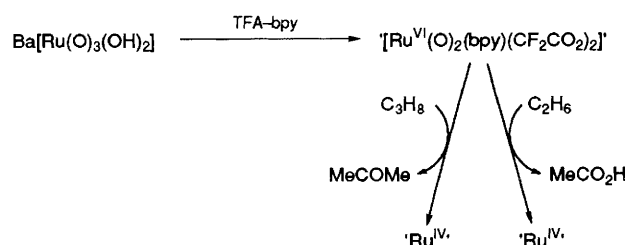
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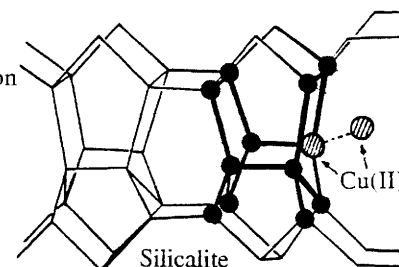
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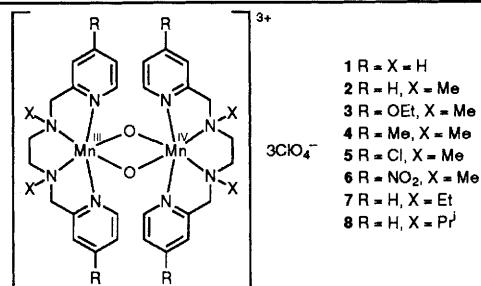
Low energy configurations of Cu^{I} and Cu^{II} species in ZSM-5, probed by energy minimisation techniques, are found to be strongly bound to framework aluminium or copper.



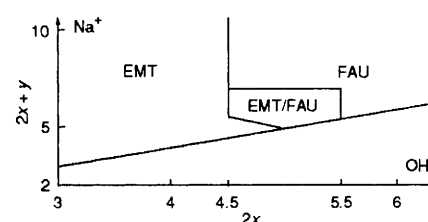
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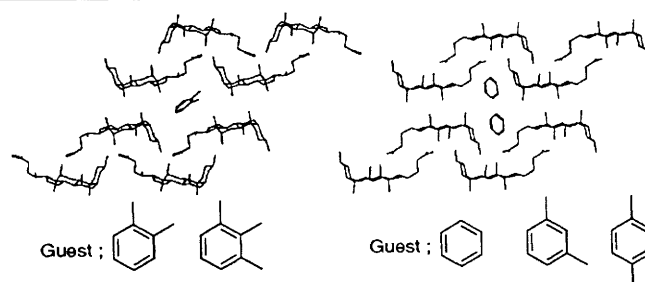
10 SiO_2 : 1 Al_2O_3 : x Na_2O : 0.7 18-crown-6 : y NaCl : 140 H_2O



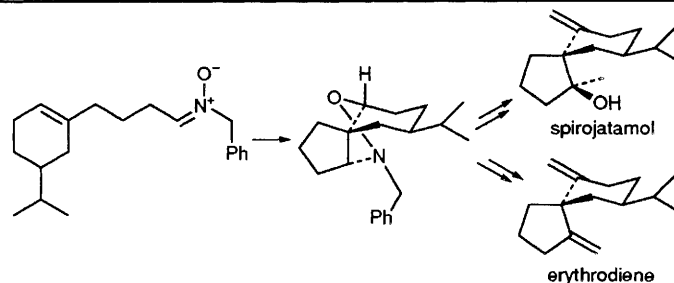
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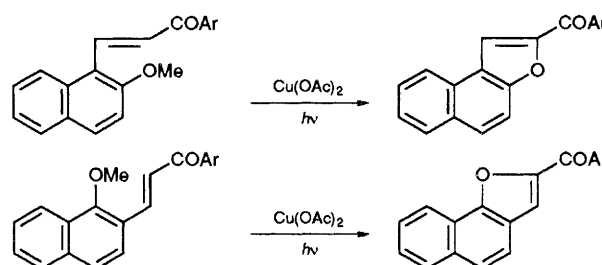
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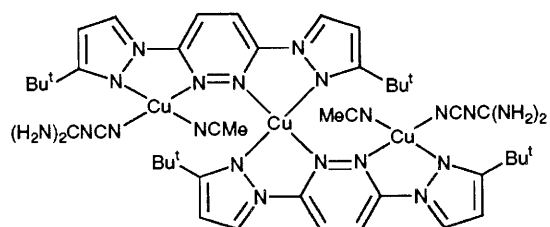
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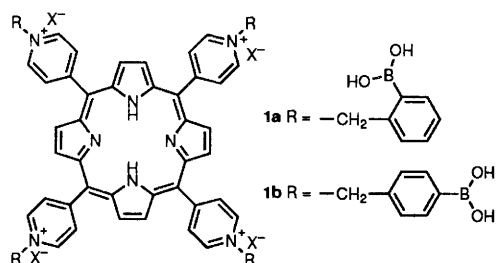
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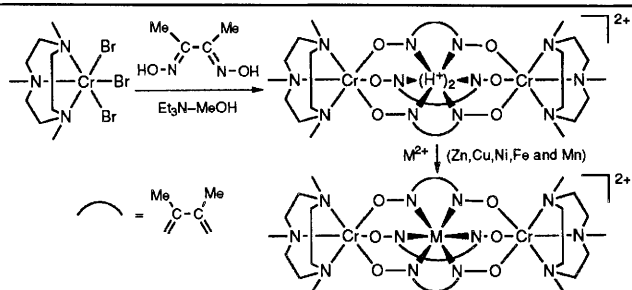
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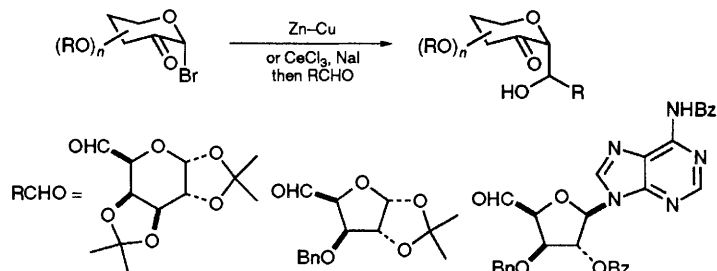
- 965 **CeO₂-based Solid Solutions with the Fluorite Structure as Novel and Effective Catalysts for Methane Combustion**

Francesca Zamar, Alessandro Trovarelli, Carla de Leitenburg, Giuliano Dolcetti

The partial substitution of Ce in CeO₂ with isovalent elements like Hf and Zr is found to greatly increase the overall activity of methane combustion measured as light-off and ignition temperature; the presence of a defective fluorite-structured oxide is recognized as a key factor in the activity enhancement.

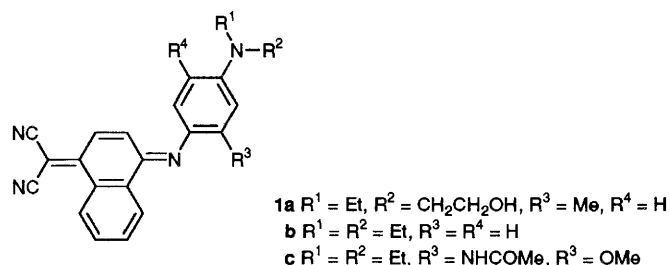
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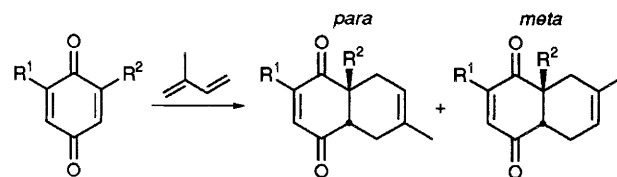
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Wen-Sheng Chung, Ju-Ying Wang



para : *meta* = 1 : 1 in water, acetone
para : *meta* = 1 : 7 in β -CD solution

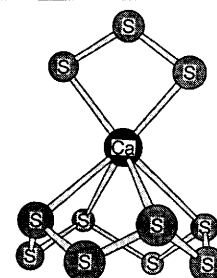
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Zhong Yong Yuan, Shu Quan Liu, Tie Hong Chen, Jing Zhong Wang, He Xuan Li

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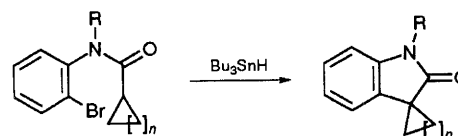
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Ian G. Dance, Keith J. Fisher, Gary D. Willett



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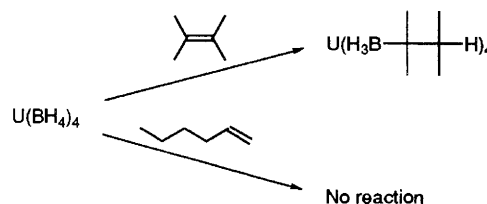
Athelstan L. J. Beckwith, John M. D. Storey



The reaction mechanism involves tandem radical translocation and aromatic substitution.

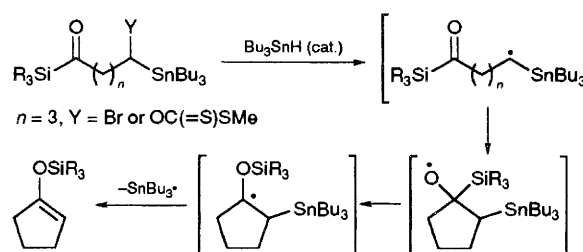
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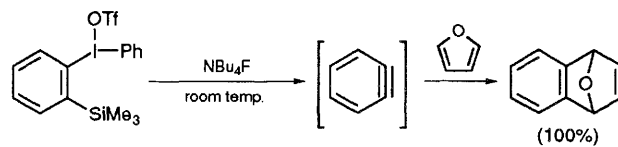


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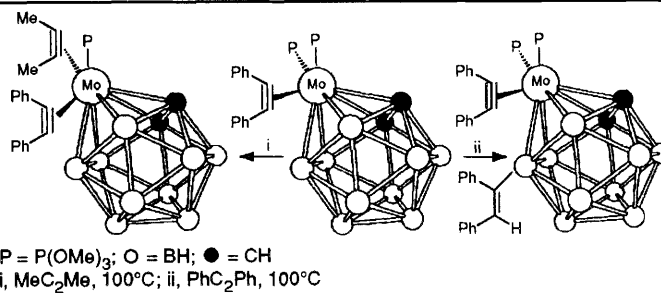


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Georg Brauers, Stephen J. Dossett, Michael Green, Mary F. Mahon

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