

Tetrahedron Symposium-in-Print Number 119

**Microwave assisted organic synthesis**

Guest editor: Nicholas E. Leadbeater

Department of Chemistry, University of Connecticut, 55 North Eagleville Road,  
Storrs CT 06269-3060, USA

**Contents**

**Announcement: Tetrahedron Symposia-in-Print**  
Preface

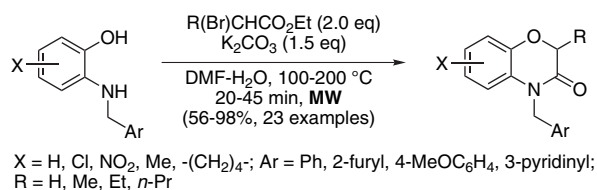
pp 4629–4631  
p 4633

**ARTICLES**

**One-pot regioselective annulation toward 3,4-dihydro-3-oxo-2H-1,4-benzoxazine scaffolds under controlled microwave heating**

pp 4635–4642

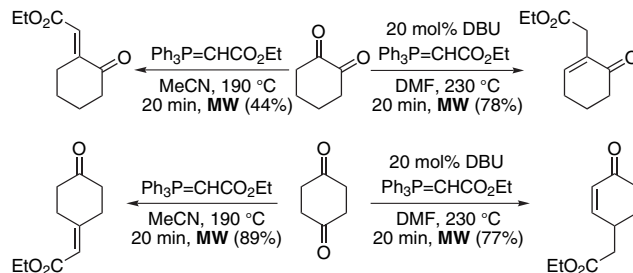
Gaofeng Feng, Jinlong Wu and Wei-Min Dai\*



**Microwave-assisted regioselective olefinations of cyclic mono- and di-ketones with a stabilized phosphorus ylide**

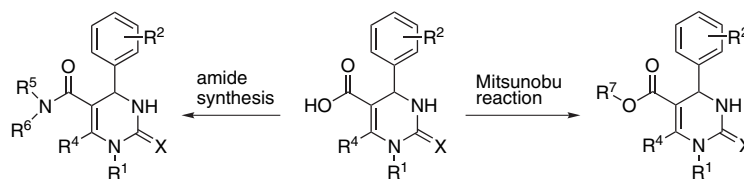
pp 4643–4650

Jinlong Wu, Dan Li, Huafeng Wu, Lijie Sun and Wei-Min Dai\*



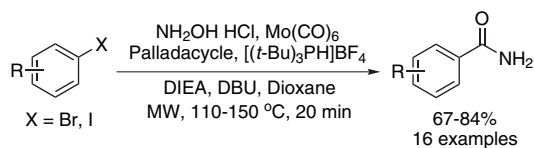
**Microwave-assisted solution phase synthesis of dihydropyrimidine C5 amides and esters**  
Bimbisar Desai, Doris Dallinger and C. Oliver Kappe\*

pp 4651–4664



**Hydroxylamine as an ammonia equivalent in microwave-enhanced aminocarbonylations**  
Xiongyu Wu, Johan Wannberg and Mats Larhed\*

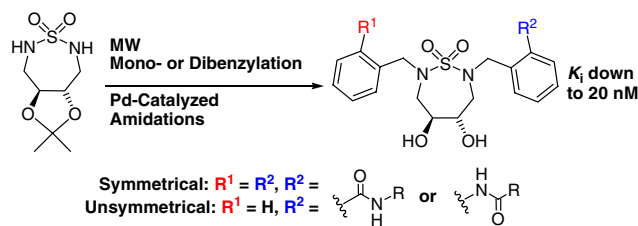
pp 4665–4670



**Fast and selective synthesis of novel cyclic sulfamide HIV-1 protease inhibitors under controlled microwave heating**

pp 4671–4675

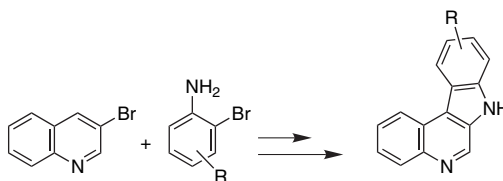
Henrik Gold, Anna Ax, Lotta Vrang, Bertil Samuelsson, Anders Karlén, Anders Hallberg and Mats Larhed\*



**Synthesis of 7H-indolo[2,3-*c*]quinolines: study of the Pd-catalyzed intramolecular arylation of 3-(2-bromophenylamino)quinolines under microwave irradiation**

pp 4676–4684

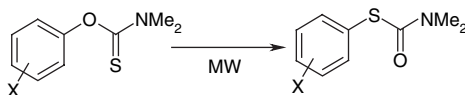
Steven Hostyn, Bert U. W. Maes,\* Gitte Van Baelen, Anna Gulevskaya, Caroline Meyers and Koen Smits



**The Newman–Kwart rearrangement re-evaluated by microwave synthesis**

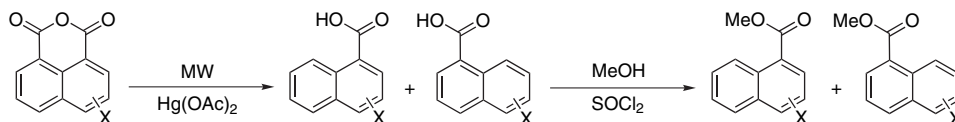
pp 4685–4689

Jonathan D. Moseley,\* Rosalind F. Sankey, Olivier N. Tang and John P. Gilday

**The mercury-mediated decarboxylation (Pesci reaction) of naphthoic anhydrides investigated by microwave synthesis**

pp 4690–4697

Jonathan D. Moseley\* and John P. Gilday

**Convenient preparation of substituted 5-aminoxazoles via a microwave-assisted Cornforth rearrangement**

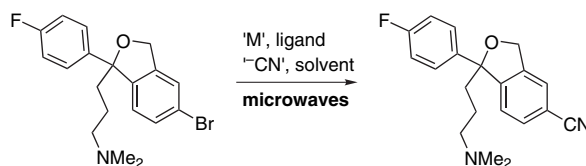
pp 4698–4704

M. Brad Nolt,\* Mark A. Smiley, Sandor L. Varga, Ray T. McClain, Scott E. Wolkenberg and Craig W. Lindsley

**Optimisation and scale-up of microwave assisted cyanation**

pp 4705–4708

Michael R. Pitts,\* Peter McCormack and John Whittall

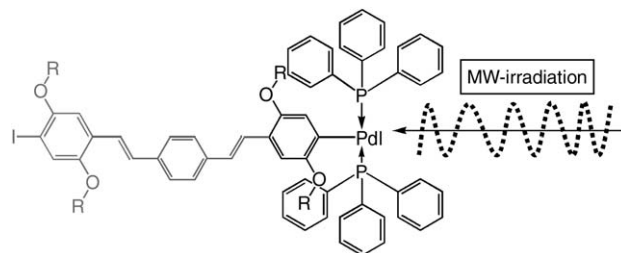


A microwave enhanced palladium catalysed cyanation procedure was optimised for citalopram. The method was demonstrated on multigram batch scale for the synthesis of escitalopram and in a stop-flow continuous process for citalopram.

**Microwave-assisted polymer chemistry: Heck-reaction, transesterification, Baeyer–Villiger oxidation, oxazoline polymerization, acrylamides, and porous materials** pp 4709–4714

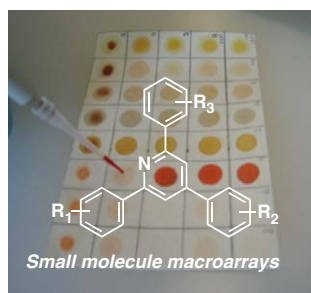
Carsten Koopmans, Mauro Iannelli, Patrick Kerep, Michael Klink, Sarah Schmitz, Sebastian Sinnwell and Helmut Ritter\*

In this paper we report the first MW assisted synthesis of poly(2,5-dibutoxy-1,4-phenylenevinylene) via Heck polycondensation. The facile synthesis of the higher lactones via Baeyer–Villiger reaction offers indeed an example for the MW-accelerating effect. A survey of our recent work is also given to provide examples for what we term special MW effects.



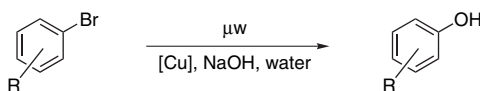
**Efficient synthesis of small molecule macroarrays: optimization of the macroarray synthesis platform and examination of microwave and conventional heating methods** pp 4715–4727

Matthew D. Bowman, Megan M. Jacobson, Brian G. Pujanauski and Helen E. Blackwell\*




**Direct conversion of aryl halides to phenols using high-temperature or near-critical water and microwave heating** pp 4728–4732

Chad M. Kormos and Nicholas E. Leadbeater\*



The direct conversion of aryl halides to the corresponding phenols has been achieved using microwave heating. High-temperature or near-critical water is used as the solvent in conjunction with a copper catalyst and a mineral base.

\*Corresponding author

 Supplementary data available via ScienceDirect

## COVER

The cover art is a collage bringing together some concepts of microwave-promoted synthesis. Microwaves, like all electromagnetic radiation, travel at the speed of light. They are of relatively low energy and cannot break chemical bonds, they can only make molecules rotate. They cause heating on a molecular level and can accelerate reactions, leading to a significant time saving and often improving product yields. The reaction shown is a Suzuki coupling. Using microwave heating, the Suzuki coupling can be performed in water using as little as 50 ppb palladium.

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