


					1984/03/18	
		NewSun B.V.				

2002.9-2006.6

2003.9-2006.6

2006.9-2009.6

2009.9-2014.6

2014.7-2015.7

2015.11- NewSun B.V.

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²⁷Al

X

Roger A. Sheldon

Regina Palkovits

Pierluigi Barbaro

Ken-ichi Shimizu

Maria-Magdalena Titirici

200

2.

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ZSM-5

200

46%

91%

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3.

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1.5 nm

27

CO

X

X

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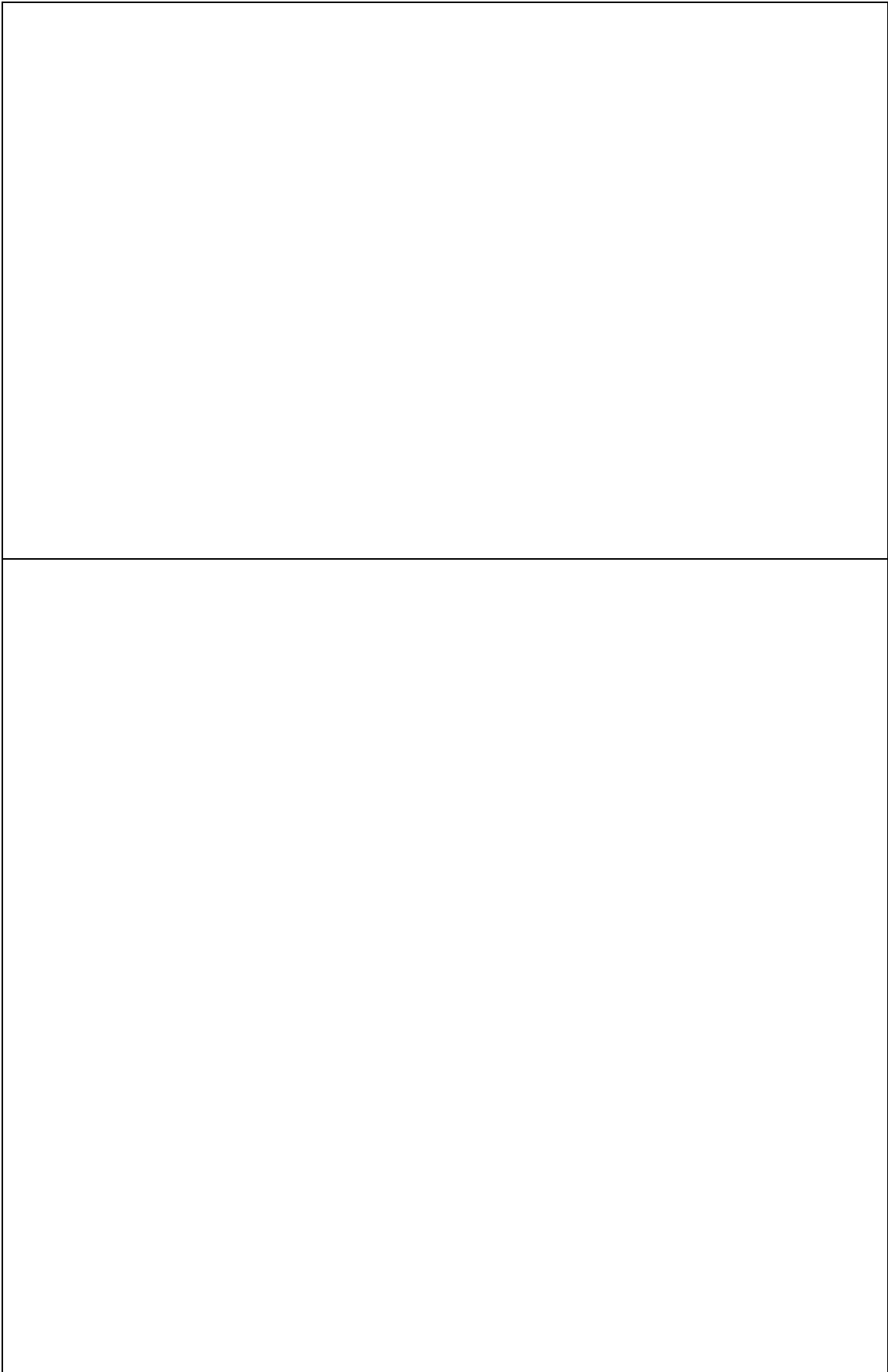
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1.	,	120
2.	Catchbio -	90
3.		100

Supported monometallic and bimetallic catalysts for the hydrogenation of levulinic acid

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1

PCT/NL2014/050569

BASF DSM

2

in-situ

IR

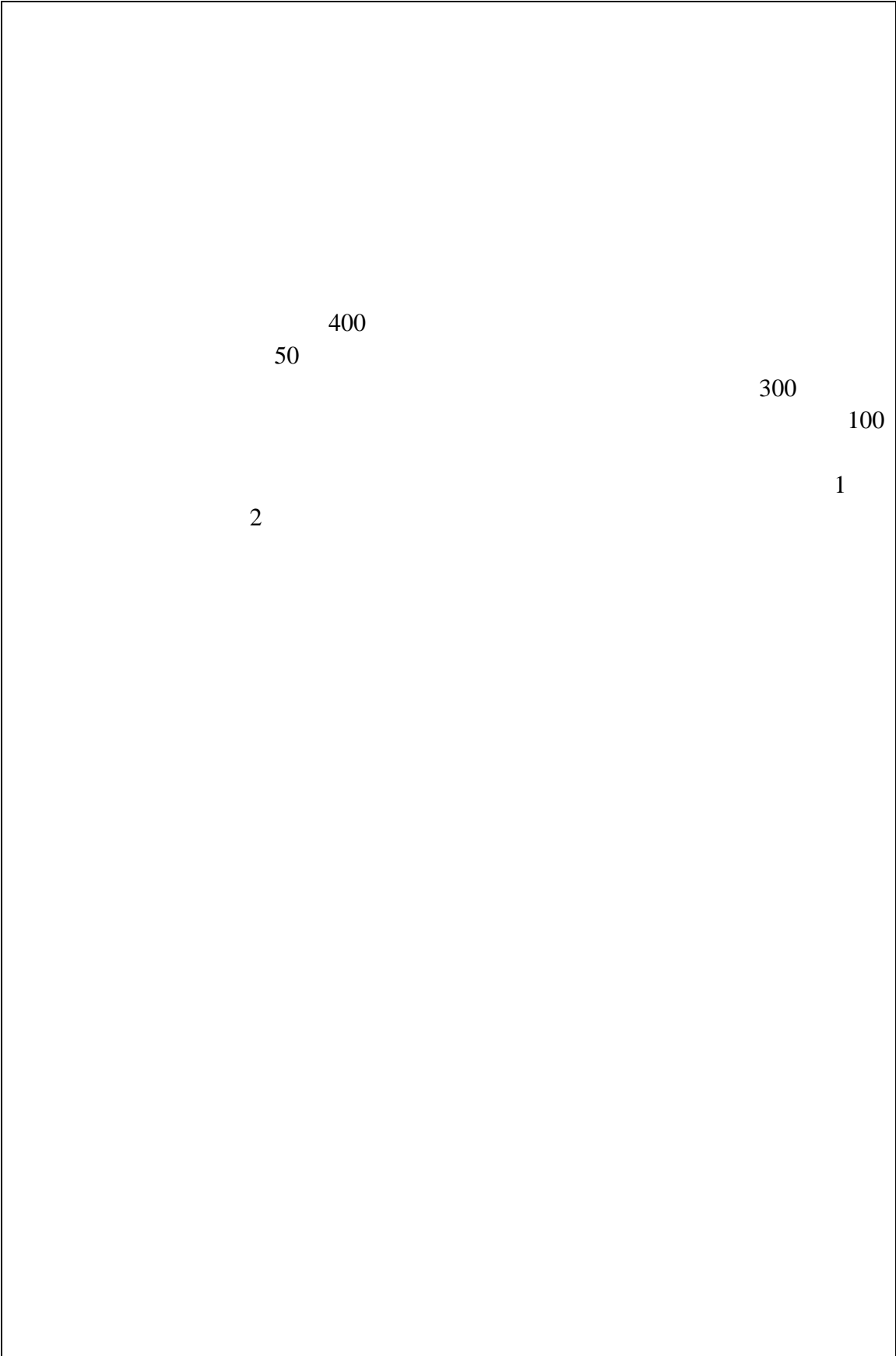
in-situ UV-Vis, Raman,

(-190 700)

10^{-9} mbar 30 bar

X STXM ,

3



50 400

300 100

2

1
