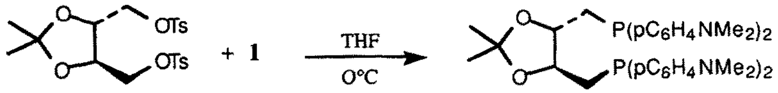
Tetrahedron. Asymmetry Vol 2, No 2, pp 91-92, 1991 Pergamon Press plc Printed in Great Britain

CORRIGENDA

Imre Tóth and Brian E Hanson, Novel chiral water soluble phosphines–I Preparation and characterization of amine functionalized DIOP, Chiraphos, and BDPP derivatives and quaternization of their rhodium complexes, *Tetrahedron Asymmetry* **1990,** 895–912

The configuration of (-)-2,3-isopropylidene-D-(4R,5R)-threitol-ditosylate and **2a** is incorrect in reaction 1 The corrected reaction is shown below

1 

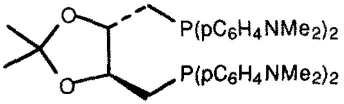
(-)-2,3-isopropylidene-D-(4R,5R)-threitol-ditosylate

(-)-(4S,5S)-**2a**
α_D^{20} = -18 7° (c 1 94, benzene)

STEREOCHEMISTRY ABSTRACTS

Tetrahedron: Asymmetry **1990,** 1, 895

I Toth and B E Hanson



$C_{39}H_{52}N_4O_2P_2$
(-),2,3-O-Isopropylidene-2,3-dihydroxy-1,4-bis-[bis-((p-N,N-dimethylamino)phenyl)phosphino]butane

E e = 100% [by optical purity of starting material, Aldrich]

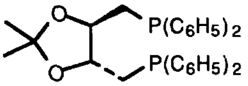
$[\alpha]_D^{20}$ = -18 7° (c 1 94, benzene)

Source of chirality natural

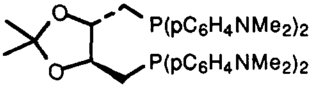
Absolute configuration 4S,5S

Imre Tóth, Brian E Hanson and Mark E Davis, Novel chiral water soluble phosphines–II Applications in catalytic asymmetric hydrogenation, *Tetrahedron Asymmetry* 1990, 913–930

The stereochemistry shown in Scheme 1 for DIOP and **2a** was incorrect The corrected stereochemistry is shown below



(-)(4R,5R)-DIOP



(-)(4S,5S)-**2a**

Asymmetric hydrogenation with (-)-**2a** and (-)DIOP give products of opposite configuration as expected given the opposite configuration of the ligands Introduction of dimethylamino groups does appear to have an effect on the enantioselectivity for hydrogenation of certain substrates, Table 1, however in no case is the expected configuration of products opposite to that observed The previously stated conclusions on the sense of catalysis for the DIOP derivatives were based on the incorrect assignment of configuration for (-)**2a**

Table 1

Ligand	(-)-(4S,5S)-**2a**		(-)-(4R,5R)-DIOP	
Substrate	ee	t o f (1/s)	ee	t o f (1/s)
1a	59(S)	0 75	82(R)	0 3
1b	44(S)	1 10	66(R)	-
1c	88(S)	0 40	84(R)	-
1d	7(S)	1 20	-	-
1e	8(S)	1 75	73(R)	-