研究简报

缬沙坦类似物合成中间产物的捕获(Ⅱ)

付大伟 赵 红*
(东南大学化学化工学院,南京 210096)

关键词:缬沙坦类似物;锌;四唑;水热合成
中图分类号:O614.24+1 **文献标识码**:A **文章编号**:1001-4861(2007)02-0281-02

Intermediate Captured in the Reaction of Synthesizing Valsartan Analogue(Ⅱ)

FU Da-Wei ZHAO Hong*
(*School of Chemistry and Chemical Engineering, Southeast University, Nanjing* 210096)

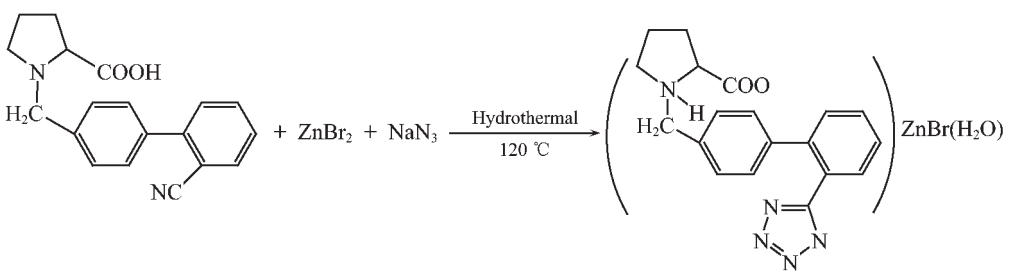
Abstract: In this article we mainly discuss the effect of anion of Lewis acid on the structure of the intermediate in synthesis of valsartan analogue. The crystal belongs to monoclinic system with space group $P2_1/c$, and a=1.099 9(3) nm, b=1.913 4(5) nm, c=0.977 8(3) nm, β=104.806(4)°, V=1.989 5(9) nm^3, D_c=1.708 g·cm^{-3}, Z=18. CCDC: 629931.

Key words: valsartan; Zn; tetrazole; hydrothermal synthesis

In order to investigate the effect of anion of Lewis acid on the structure and yield of intermediate[1~10] produced by [2+3] cycloaddition reaction between cyano and azide, we have carried out the crystallographical characteriz-ation of the product obtained by *N*-(4-(2′-cyanophenyl)benzylproline reacting with $ZnBr_2$ as shown in Scheme Ⅰ.

As depicted in Fig.1, the local coordination geometry around Zn center has a distorted tetrahedron consisting of two N atoms, one O atom and a terminal Br. The *N*-(4-(2′-1H-tetrazol-5-yl-plenyl)benzylproline in-situ produced acts as a tridentate bridging binder to link two Zn centers to result in the formation of one-dimensional chain (Fig.2). The racemization occurred may be due to high temperature under hydrothermal conditions.

CCDC: 629931.



Scheme Ⅰ

收稿日期:2006-10-10。收修改稿日期:2006-12-18。
东南大学启动基金资助项目。
*通讯联系人。E-mail:hongzhaoupr@yahoo.com
第一作者:付大伟,男,26 岁,硕士研究生;研究方向:固体状态化学。

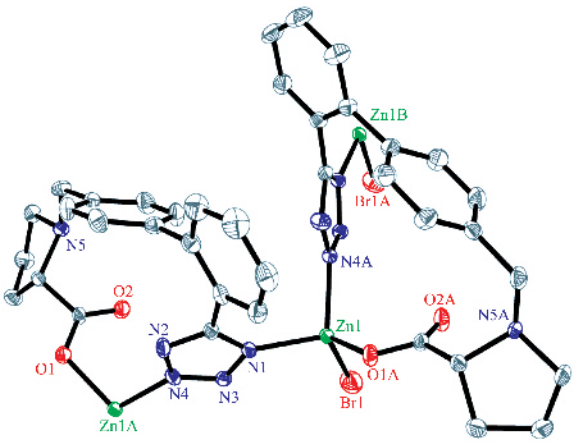


Fig.1 Asymmetric unit of HTPBP-ZnBr(H_2O)

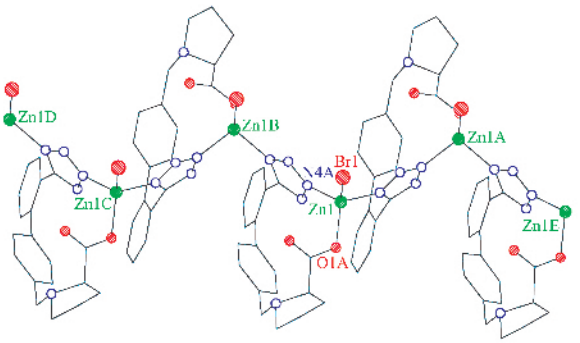


Fig.2 1D chain structure of HTPBP-ZnBr(H_2O)

References:

[1] Gooβen L J, Deng G, Levy L M. *Science*, **2006**,**313**:662~664

[2] WANG Xi-Sen(王锡森), SONG Yu-Mei(宋玉梅), XIONG Ren-Gen(熊仁根). *Wuji Huaxue Xuebao*(*Chin. J. Inorg. Chem.*), **2005**,**21**(7):1030~1034

[3] WANG Xi-Sen(王锡森), TANG Yun-Zhi(唐云志), XIONG Ren-Gen(熊仁根). *Wuji Huaxue Xuebao*(*Chin. J. Inorg. Chem.*), **2005**,**21**(7):1025~1029

[4] WANG Xi-Sen(王锡森), HUANG Xue-Feng(黄雪峰), XIONG Ren-Gen(熊仁根). *Wuji Huaxue Xuebao*(*Chin. J. Inorg. Chem.*), **2005**,**21**(7):1020~1024

[5] Wang X S, Tang Y Z, Huang X F, et al. *Inorg. Chem.*, **2005**, **44**:5278~5285

[6] Huang X F, Song Y M, Wu Q, et al. *Inorg. Chem. Commun.*, **2005**,**8**:58~60

[7] Ye Q, Tang Y Z, , Xiong R G, et al. *Dalton Trans*., **2005**:1570~1573

[8] Wang Y C, Zhao H, Song Y M, et al. *Applied Organomet. Chem.*, **2004**,**18**:494~495

[9] Wang L Z, Qu Z R, Zhao H, et al. *Inorg. Chem.*, **2003**,**42**: 3969~3971

[10]Qu Z R, Zhao H, Wang X S, et al. *Inorg. Chem.*, **2003**,**42**: 7710~7712