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- (71) **Applicant (for all designated States except US):** **HANMI FINE CHEMICAL CO., LTD.** [KR/KR]; (Jeongwang-dong), 59, Kyoungje-ro, Siheung-si, Gyeonggi-do 429-848 (KR).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** **JO, Nam-hyun** [KR/KR]; 402-2205, Poonglim 4 Cha Apt., Wolgotdong, Siheung-si, Gyeonggi-do 429-928 (KR). **LEE, Young Ju** [KR/KR]; 102-604, Donga Hangaram Apt., Pungnap 1-dong, Songpa-gu, Seoul 138-780 (KR). **CHU, Junho** [KR/KR]; 102-603, Boseong Apt., Jeongwang 4-dong, Siheung-si, Gyeonggi-do 429-768 (KR). **JEONG, Jiweon** [KR/KR]; 202-1103, Gwiin Hyundai Hometown, Pyeongchon-dong, Dongan-gu, Anyang-si, Gyeonggi-do 431-070 (KR).
- (74) **Agent:** **DARAE IP FIRM;** (KIPS, Yeoksam-dong), 10th Floor, 131, Teheran-ro, Gangnam-gu, Seoul 135-080 (KR).
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(54) **Title:** MANUFACTURING METHOD OF AZILSARTAN

(57) **Abstract:** Disclosed is a method of manufacturing azilsartan, which treats a compound containing an amino-alcohol derivative with N,N'-carbonyldiimidazole, an inorganic base and a solvent to proceed both of cyclization and hydrolysis in a single reactor, so that one-pot reaction may be performed to hence achieve advantages such as a simple and convenient working process, reduction in processing time, and production of a compound with high purity of more than 98% and high yield, compared to typical stepwise processes known in related art.

## INTERNATIONAL SEARCH REPORT

International application No.  
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<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
<i>C07D 413/10(2006.01)i, A61K 31/4245(2006.01)i, A61P 9/12(2006.01)i</i>		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) C07D 413/10; A61K 31/4245; A61K 31/42; A61K 31/435; A61P 9/12		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal), CAplus		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5583141 A (NAKA, TAKEHIKO et al.) 10 December 1996 See the whole document.	1-10
A	US 2010-0016382 A1 (NOMURA, YUKIHIRO et al.) 21 January 2010 See the whole document.	1-10
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&amp;" document member of the same patent family</p>		
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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date		
US 5583141 A	10.12.1996	CA 2072541 A1	28.12.1992		
		CN 1067890 A	13.01.1993		
		EP 0520423 A2	30.12.1992		
		EP 0520423 B1	14.05.2003		
		EP 0534318 A1	31.03.1993		
		EP 0534318 B1	05.02.1997		
		JP 05-078955 A	30.03.1993		
		JP 05-271228 A	19.10.1993		
		JP 09-183778 A	15.07.1997		
		KR 10-0233689 B1	01.12.1999		
		KR 10-0241684 B1	02.03.2000		
		US 05243054A A	07.09.1993		
		US 05293907A A	15.03.1994		
		US 05354766A A	11.10.1994		
		US 05736555A A	07.04.1998		
		US 05883111A A	16.03.1999		
		US 06100252A A	08.08.2000		
		US 2010-0016382 A1	21.01.2010	AU 2007-282400 A1	14.02.2008
				CA 2660427 A1	14.02.2008
				CN 101528262 A	09.09.2009
EP 2058010 A1	13.05.2009				
EP 2058010 B1	02.05.2012				
JP 2011-168622 A	01.09.2011				
KR 10-2009-0050071 A	19.05.2009				
WO 2008-018569 A1	14.02.2008				