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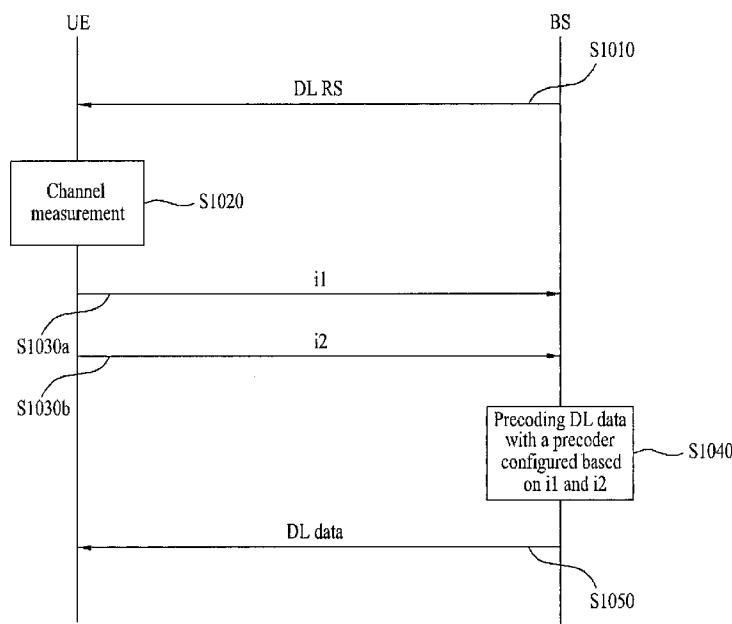
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[Continued on next page]

(54) **Title:** METHOD AND USER EQUIPMENT FOR TRANSMITTING PRECODING MATRIX INFORMATION, AND METHOD AND BASE STATION FOR CONFIGURING PRECODING MATRIX

FIG. 8



(57) **Abstract:** An apparatus and method for a precoding matrix are disclosed. A codebook used for selecting a precoding matrix is comprised of m subgroups each including n precoding matrices. A user equipment indicates a specific precoding matrix selected from the codebook by transmitting to a base station a first codebook index indicating one of the m subgroups and a second codebook index indicating one of n precoding matrices in a subgroup. The base station configures the specific precoding matrix from the codebook based on the first and second codebook indexes.



EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,  
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,  
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According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: precoding matrix , codebook , index , subgroup

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-2008-0052900 A (삼성전자주식회사) 12 June 2008 See abstract; claims 1-9; figure 1; paragraphs [0023]-[0042].	1-16
A	US 2007-0165738 A1 (GWENDOLYN BARRIAC et al.) 19 July 2007 See abstract; claims 1, 8; figure 9; paragraphs [0067]-[0077].	1-16
A	EP 2157707 A1 (HUAWEI TECHNOLOGIES CO., LTD.) 24 February 2010 See abstract; claims 1, 19-20, 22; figure 2; paragraphs [0048], [0051].	1-16

 Further documents are listed in the continuation of Box C. See patent family annex.

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

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