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- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN,

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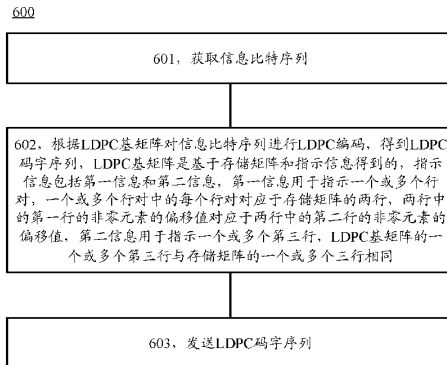


图 6

- 601 Acquire an information bit sequence
- 602 Perform LDPC encoding on the information bit sequence according to an LDPC base matrix to obtain an LDPC codeword sequence, the LDPC base matrix being obtained on the basis of a storage matrix and indication information, the indication information comprising first information and second information, the first information being used for indicating one or more row pairs, each of the one or more row pairs corresponding to two rows of the storage matrix, an offset value of a non-zero element of a first row in the two rows corresponding to an offset value of a non-zero element of a second row in the two rows, the second information being used for indicating one or more third rows, and the one or more third rows of the LDPC base matrix being the same as one or more third rows of the storage matrix
- 603 Send an LDPC codeword sequence

(57) Abstract: The present application provides a method for constructing an LDPC base matrix, and the LDPC base matrix can be obtained according to a storage matrix and indication information. Specifically, in the process of obtaining the LDPC base matrix, low code rate expansion comprises a conventional expansion mode and a split expansion mode, and whether each expansion is a conventional expansion or a split expansion can be determined by means of the indication information. The conventional expansion can increase the overall edge density of the LDPC base matrix, and the split expansion can decrease the overall edge density of the LDPC

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base matrix. In this way, the overall edge density of the LDPC base matrix can be increased by means of the conventional expansion, the overall edge density of the LDPC base matrix can be decreased by means of the split expansion, and the optimal edge density of the LDPC base matrix can be maintained in the low code rate expansion process, thereby improving the performance of LDPC codes.

(57) 摘要: 本申请提供了一种构造LDPC基矩阵的方式, 可以根据存储矩阵以及指示信息得到LDPC基矩阵。具体而言, 在得到LDPC基矩阵的过程中, 低码率拓展包括传统拓展和分裂拓展两种方式, 每一次拓展是传统拓展还是分裂拓展可以通过指示信息确定。传统拓展可以增加LDPC基矩阵的整体边密度, 分裂拓展可以减少LDPC基矩阵的整体边密度。这样, 可以通过传统拓展增加LDPC基矩阵的整体边密度, 通过分裂拓展减少LDPC基矩阵的整体边密度, 有助于在低码率拓展过程中维持LDPC基矩阵的最优边密度, 从而提升LDPC码的性能。