CLAIMS

We claim~~What is claimed is~~:

1. A communication method, comprising:

sending, by a first device, ~~information about~~ a first priority and a second priority to a second device, wherein

the first priority is used for ~~to assist~~ the second device in selecting a resource for sidelink transmission of the first device, ~~the information about~~ the first priority is carried in sidelink control information (SCI) on a physical sidelink shared channel (PSSCH), and/or a medium access control control element (MAC CE), and the second priority indicates a priority of the PSSCH, ~~is a physical layer priority of the first device~~ the second priority is carried in SCI on a physical sidelink control channel (PSCCH).

2. The method according to claim 1, wherein,

sending, by the first device, a coordination request to the second device.

3. The method according to claim 2, wherein,

the coordination request comprises the first priority and the second priority.

4. The method according to claim 1, wherein,

the value of the second priority is 1.

5. The method according to claim 1, wherein,

the first priority is carried in SCI 2-C on the PSSCH, the SCI 2-C comprises a fifth field, the fifth field indicates the first priority, the fifth field occupied 3 bits.

6. The method according to claim 1, wherein,

the second priority is carried in SCI 1 on the PSCCH.

7. The method according to claim 2, wherein,

the first priority is obtained based on the coordination request.

~~2. The method according to claim 1, wherein the first device further sends first information to the second device, and the first information comprises any one of the following:~~

~~a resource set for sidelink transmission determined by the first device, and information used by the first device to select a sidelink transmission resource.~~

~~3. The method according to claim 1 or 2, wherein the second priority is a preset value, or the second priority is a priority in a preset priority list, and the preset priority list comprises a plurality~~

~~of priorities.~~

~~4. The method according to claim 1 or 2, wherein the second priority is related to the first priority.~~

~~5. The method according to claim 4, wherein the second priority is related to a range of the first priority.~~

~~6. The method according to claim 4, wherein the second priority is a sum of the first priority and a first difference, or the second priority is a difference between the first priority and a first difference.~~

~~7. The method according to claim 4, wherein the second priority is a higher priority between the first priority and a logical channel priority, and the logical channel priority is a highest priority in logical channel priorities corresponding to data of a physical sidelink shared channel PSSCH.~~

8. The method according to ~~any one of~~ claim~~s~~ 1~~ to 7~~, wherein ~~the information about~~ the first priority is carried in a first sub-protocol data unit, the first sub-protocol data unit is a medium access control sub-protocol data unit, the first sub-protocol data unit comprises a first subheader and a first control element, the first subheader comprises a first field, and the first field indicates a logical channel number.

9. The method according to claim 8, wherein a first value of the first field in the first subheader indicates that ~~the information about~~ the first priority is transmitted.

~~10. The method according to claim 8 or 9, wherein the first control element comprises a second field, and the second field indicates the information about the first priority.~~

~~11. The method according to any one of claims 1 to 10, wherein the information about the first priority is carried in the SCI.~~

~~12. The method according to claim 11, wherein SCI of a control channel comprises a fourth field, the fourth field indicates the first priority, or the fourth field indicates a second difference corresponding to the first priority, and the second difference is a difference between the first priority and the second priority.~~

~~13. The method according to claim 11, wherein SCI of a data channel comprises a fifth field, and the fifth field indicates the first priority or a second difference corresponding to the first priority.~~

10~~14~~. A communication method, comprising:

receiving, by a second device, ~~information about~~ a first priority and a second priority from a first device, wherein the first priority is used ~~to assist~~for the second device in selecting a resource

for sidelink transmission of the first device, ~~the information about~~ the first priority is carried in sidelink control information (SCI) on a physical sidelink shared channel (PSSCH), and/or a medium access control control element (MAC CE), and the second priority indicates a priority of the PSSCH, the second priority is carried in SCI on a physical sidelink control channel (PSCCH)~~is a physical layer priority of the first device~~; and

selecting, by the second device based on ~~the information about~~ the first priority, a resource for sidelink transmission of the first device.

11. The method according to claim 10, wherein,

receiving, by the second device, a coordination request from the first device.

12. The method according to claim 11, wherein,

the coordination request comprises the first priority and the second priority.

13. The method according to claim 10, wherein,

the value of the second priority is 1.

14. The method according to claim 10, wherein,

the first priority is carried in SCI 2-C on the PSSCH, the SCI 2-C comprises a fifth field, the fifth field indicates the first priority, the fifth field occupied 3 bits.

15. The method according to claim 10, wherein,

the second priority is carried in SCI 1 on the PSCCH.

16. The method according to claim 11, wherein,

the first priority is obtained based on the coordination request.

~~15. The method according to claim 14, wherein the second device further receives first information from the first device, and the first information comprises any one of the following:~~

~~a resource set for sidelink transmission determined by the first device, and information used by the first device to select a sidelink transmission resource.~~

~~16. The method according to claim 14 or 15, wherein the second priority is a preset value, or the second priority is a priority in a preset priority list, and the preset priority list comprises a plurality of priorities.~~

~~17. The method according to claim 14 or 15, wherein the second priority is related to the first priority.~~

~~18. The method according to claim 17, wherein the second priority is related to a range of the first priority.~~

~~19. The method according to claim 17, wherein the second priority is a sum of the first priority and a first difference, or the second priority is a difference between the first priority and a first difference.~~

~~20. The method according to claim 17, wherein the second priority is a higher priority between the first priority and a logical channel priority, and the logical channel priority is a highest priority in logical channel priorities corresponding to data of a physical sidelink shared channel PSSCH.~~

17~~21~~. The method according to ~~any one of~~ claim~~s~~ 10~~14 to 20~~, wherein ~~the information about~~ the first priority is carried in a first sub-protocol data unit, the first sub-protocol data unit is a medium access control sub-protocol data unit, the first sub-protocol data unit comprises a first subheader and a first control element, the first subheader comprises a first field, and the first field indicates a logical channel number.

18~~22~~. The method according to claim ~~21~~17, wherein a first value of the first field in the first subheader indicates that ~~the information about~~ the first priority is transmitted.

19. The method according to claim 10, wherein,

selecting, by the second device, the resource for sidelink transmission of the first device, based on the first priority, a location and a length of a resource sensing window, a quantity of resource selection frequency domain sub-bandwidths, a transmission period, and resource pool information.

20. A wireless apparatus, comprising:

one or more processors; and

a memory, wherein the memory stores instructions, and when executing the instructions stored in the memory, the one or more processors executes operations comprising:

sending a first priority and a second priority to a second device, wherein

the first priority is used for the second device in selecting a resource for sidelink transmission of a first device, the first priority is carried in sidelink control information (SCI) on a physical sidelink shared channel (PSSCH), and/or a medium access control control element (MAC CE), and the second priority indicates a priority of the PSSCH, the second priority is carried in SCI on a physical sidelink control channel (PSCCH).

21. The wireless apparatus according to claim 20, wherein the operations further comprising:

sending a coordination request to the second device.

22. The wireless apparatus according to claim 21, wherein,

the coordination request comprises the first priority and the second priority.

23. The wireless apparatus according to claim 20, wherein,

the value of the second priority is 1.

24. The wireless apparatus according to claim 20, wherein,

the first priority is carried in SCI 2-C on the PSSCH, the SCI 2-C comprises a fifth field, the fifth field indicates the first priority, the fifth field occupied 3 bits.

25. The wireless apparatus according to claim 20, wherein,

the second priority is carried in SCI 1 on the PSCCH.

26. The wireless apparatus according to claim 21, wherein,

the first priority is obtained based on the coordination request.

27. The wireless apparatus according to claim 20, wherein the first priority is carried in a first sub-protocol data unit, the first sub-protocol data unit is a medium access control sub-protocol data unit, the first sub-protocol data unit comprises a first subheader and a first control element, the first subheader comprises a first field, and the first field indicates a logical channel number.

28. The wireless apparatus according to claim 27, wherein a first value of the first field in the first subheader indicates that the first priority is transmitted.

29. A wireless apparatus, comprising:

one or more processors; and

a memory, wherein the memory stores instructions, and when executing the instructions stored in the memory, the one or more processors executes operations comprising:

receiving a first priority and a second priority from a first device, wherein the first priority is used for selecting a resource for sidelink transmission of the first device, the first priority is carried in sidelink control information, SCI, on a physical sidelink shared channel, PSSCH, and/or a medium access control control element MAC CE, and the second priority indicates a priority of the PSSCH, the second priority is carried in SCI on a physical sidelink control channel, PSCCH; and

selecting, based on the first priority, a resource for sidelink transmission of the first device.

30. The wireless apparatus according to claim 29, wherein,

receiving a coordination request from the first device.

31. The wireless apparatus according to claim 30, wherein,

the coordination request comprises the first priority and the second priority.

32. The wireless apparatus according to claim 29, wherein,

the value of the second priority is 1.

33. The wireless apparatus according to claim 29, wherein,

the first priority is carried in SCI 2-C on the PSSCH, the SCI 2-C comprises a fifth field, the fifth field indicates the first priority, the fifth field occupied 3 bits.

34. The wireless apparatus according to claim 29, wherein,

the second priority is carried in SCI 1 on the PSCCH.

35. The wireless apparatus according to claim 30, wherein,

the first priority is obtained based on the coordination request.

36. The wireless apparatus according to claim 29, wherein the first priority is carried in a first sub-protocol data unit, the first sub-protocol data unit is a medium access control sub-protocol data unit, the first sub-protocol data unit comprises a first subheader and a first control element, the first subheader comprises a first field, and the first field indicates a logical channel number.

37. The wireless apparatus according to claim 36, wherein a first value of the first field in the first subheader indicates that the first priority is transmitted.

38. The wireless apparatus according to claim 29, wherein,

selecting the resource for sidelink transmission of the first device, based on the first priority, a location and a length of a resource sensing window, a quantity of resource selection frequency domain sub-bandwidths, a transmission period, and resource pool information.

39. A first device, configured to implement the method steps as claimed in any one of claims 1 to 9.

40. A second device, configured to implement the method steps as claimed in any one of claims 10 to 19.

~~23. The method according to claim 21 or 22, wherein the first control element comprises a second field, and the second field indicates the information about the first priority.~~

~~24. The method according to any one of claims 15 to 23, wherein the information about the first priority is carried in the SCI.~~

~~25. The method according to claim 24, wherein SCI of a control channel comprises a fourth field, the fourth field indicates the first priority, or the fourth field indicates a second difference corresponding to the first priority, and the second difference is a difference between the first~~

priority and the second priority.

26. The method according to claim 24, wherein SCI of a data channel comprises a fifth field, and the fifth field indicates the first priority or a second difference corresponding to the first priority.

27. A communication apparatus, comprising a processing module and a sending module, wherein

the processing module is configured to send information about a first priority and a second priority to a second device by using the sending module, wherein

the first priority is used to assist the second device in selecting a resource for sidelink transmission, the information about the first priority is carried in sidelink control information SCI and/or a medium access control control element MAC CE, and the second priority is a physical layer priority of a first device.

28. A communication apparatus, comprising:

a receiving module, configured to receive information about a first priority and a second priority from a first device, wherein the first priority is used to assist a second device in selecting a resource for sidelink transmission, the information about the first priority is carried in sidelink control information SCI and/or a medium access control control element MAC CE, and the second priority is a physical layer priority of the first device; and

a processing module, configured to select, based on the information about the first priority, a resource for sidelink transmission.

2941. A communication apparatus, comprising a processor and a communication interface, wherein

the communication interface is configured to implement connection and communication between the communication apparatus and a peripheral; and

the processor is configured to implement the method according to any one of claims 1 to 913 or the method according to any one of claims 1014 to 1926.

3042. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is run, the method according to any one of claims 1 to 913 or the method according to any one of claims 1014 to 1926 is implemented.