CLAIMS

1. A method for uplink control information transmission, comprising:

when a first scheduling request, SR, and uplink information need to be sent in a target time unit, simultaneously sending, by a terminal device, the uplink information and a second SR to an access network device on a physical resource in the target time unit;

wherein the terminal device uses multiple uplink logical channels for data transmission, the first SR is used for indicating at least one uplink logical channel containing data to be sent in the multiple uplink logical channels, the second SR is used for indicating whether there is uplink data to be sent on the multiple uplink logical channels, and parameters of at least two of the multiple uplink logical channels are different.

2. The method of claim 1, wherein the parameter of the uplink logical channel comprises at least one of a transmission time interval, TTI, a subcarrier spacing, a delay or reliability.

3. The method of claim 1, wherein the uplink information comprises at least one of feedback response information Acknowledgement, ACK/Non-Acknowledgement, NACK, channel state information, CSI, or uplink service data.

4. The method of any one of claims 1-3, wherein simultaneously sending, by the terminal device, the uplink information and the second SR to the access network device on the physical resource in the target time unit comprises:

sending, by the terminal device, the uplink information to the access network device using a first type of physical resources in the target time unit;

wherein the first type of physical resources is used for transmission of the first SR.

5. The method of claim 4, wherein the first type of physical resources comprises multiple first physical resources, and the multiple first physical resources have a

correspondence with the multiple uplink logical channels; and

sending, by the terminal device, the uplink information to the access network device using the first type of physical resources in the target time unit comprises:

sending, by the terminal device, the uplink information to the access network device using at least one first physical resource in the target time unit.

6. The method of any one of claims 1-3, wherein simultaneously sending, by the terminal device, the uplink information and the second SR to the access network device on the physical resource in the target time unit comprises:

sending, by the terminal device, the uplink information and the second SR to the access network device using a second type of physical resources in the target time unit;

wherein the second type of physical resources is used for transmission of the uplink information.

7. The method of claim 6, wherein the second scheduling information is 1bit information, when a value of the 1bit information is a first preset value, it is indicated that there is uplink data to be sent on the multiple uplink logical channels, and when the value of the 1bit information is a second preset value, it is indicated that there is no uplink data to be sent on the multiple uplink logical channels.

8. The method of claim 6, before sending, by the terminal device, the uplink information and the second SR to the access network device using the second type of physical resources in the target time unit, further comprising:

receiving, by the terminal device, second configuration information sent by the access network device, wherein the second configuration information is used for configuring the second type of physical resources for the terminal device.

9. The method of any one of claims 1-8, wherein the target time unit is one of a symbols, b symbol groups, c slots or d subframes, where a, b, c and d are positive integers.

10. The method of claim 5, wherein the correspondence between the first physical resources and the uplink logical channels comprises one of the following:

each first physical resource corresponds to one uplink logical channel;

each uplink logical channel corresponds to multiple first physical resources; or each first physical resource corresponds to multiple uplink logical channels.

11. A device for uplink control information transmission, comprising:

a sending module, configured to, when a first scheduling request, SR. and uplink information need to be sent in a target time unit, simultaneously send the uplink information and a second SR to an access network device on a physical resource in the target time unit;

wherein a terminal device uses multiple uplink logical channels for data transmission, the first SR is used for indicating at least one uplink logical channel containing data to be sent in the multiple uplink logical channels, the second SR is used for indicating whether there is uplink data to be sent on the multiple uplink logical channels, and parameters of at least two of the multiple uplink logical channels are different.

12. The device of claim 11, wherein the parameter of the uplink logical channel comprises at least one of a transmission time interval, TTI, a subcarrier spacing, a delay or reliability.

13. The device of claim 11, wherein the uplink information comprises at least one of feedback response information Acknowledgement, ACK/Non-Acknowledgement, NACK, channel state information, CSI, or uplink service data.

14. The device of any one of claims 11-13, wherein the sending module is further configured to:

send the uplink information to the access network device using a first type of physical resources in the target time unit;

wherein the first type of physical resources is used for transmission of the first SR.

15. The device of claim 14, wherein the first type of physical resources comprises multiple first physical resources, and the multiple first physical resources have a

correspondence with the multiple uplink logical channels; and

the sending module is further configured to send the uplink information to the access network device using at least one first physical resource in the target time unit.

16. The device of any one of claims 11-13, wherein the sending module is further configured to:

send the uplink information and the second SR to the access network device using a second type of physical resources in the target time unit;

wherein the second type of physical resources is used for transmission of the uplink information.

17. The device of claim 16, wherein the second scheduling information is 1bit information, when a value of the 1bit information is a first preset value, it is indicated that there is uplink data to be sent on the multiple uplink logical channels, and when the value of the 1bit information is a second preset value, it is indicated that there is no uplink data to be sent on the multiple uplink logical channels.

18. The device of claim 16, further comprising:

a receiving module, configured to receive second configuration information sent by the access network device, wherein the second configuration information is used for configuring the second type of physical resources for the terminal device.

19. The device of any one of claims 11-18, wherein the target time unit is one of a symbols, b symbol groups, c slots or d subframes, where a, b, c and d are positive integers.

20. The device of claim 15, wherein the correspondence between the first physical resources and the uplink logical channels comprises one of the following:

each first physical resource corresponds to one uplink logical channel;

each uplink logical channel corresponds to multiple first physical resources; or

each first physical resource corresponds to multiple uplink logical channels.