CLAIMS:

1. A method (100) for random access, characterized in comprising:
continuously transmitting (S110), by a terminal device, at least one random access signal to a network device;
detecting (S120), by the terminal device, a random access response transmitted by the network device in a random access response window corresponding to continuous transmissions in multiple times of random access signals, wherein the continuous transmissions in multiple times of the random access signals comprise continuous transmission of the at least one random access signal;
continuing to transmit (S130), by the terminal device, a subsequent random access signal to the network device if the terminal device fails to detect presence of the random access response transmitted by the network device before ending of the random access response window; and
stopping transmitting, by the terminal device, a random access signal, which is not transmitted, of the random access signals which should be transmitted in multiple times and the subsequent random access signal to the network device when the random access response transmitted by the network device is detected by the terminal device before ending of the random access response window.

2. The method of claim 1, wherein transmission of the at least one random access signal comprises transmissions in multiple times of the random access signals; and
wherein detecting (S120), by the terminal device, a random access response transmitted by the network device in a random access response window corresponding to continuous transmissions in multiple times of random access signals comprises:
starting, by the terminal device, the random access response window and detecting, by the terminal device, the random access response transmitted by the network device in the random access response window, if the continuous transmissions in multiple times of the random access signals are completed by the terminal device.

3. The method of claim 1, wherein detecting (S120), by the terminal device, a random access response transmitted by the network device in a random access response window corresponding to continuous transmissions in multiple times of random access signals comprises:
starting, by the terminal device, the random access response window and detecting, by the

terminal device, the random access response transmitted by the network device in the random access response window, if transmission of a first random access signal of the at least one random access signal is completed by the terminal device.

4. The method of any one of claims 1-3, wherein continuing to transmit (S130), by the terminal device, a subsequent random access signal to the network device comprises:
continuing to transmit, by the terminal device, the subsequent random access signal to the network device on a beam on which the at least one random access signal is transmitted; or
continuing to transmit, by the terminal device, the subsequent random access signal to the network device on a beam other than that on which the at least one random access signal is transmitted.

5. The method of any one of claims 1-4, wherein continuously transmitting (S110), by a terminal device, at least one random access signal to a network device comprises:
continuously transmitting, by the terminal device, the at least one random access signal to the network device on a same beam; or
continuously transmitting, by the terminal device, the at least one random access signal to the network device on different beams.

6. A method (200) for random access, characterized in comprising:
continuously transmitting (S210), by a terminal device, random access signals to a network device in multiple times;detecting (S220), by the terminal device, a random access response transmitted by the network device in a plurality of random access response windows corresponding to continuous transmissions in multiple times of the random access signals, wherein one transmission of that of the random access signals transmitted in multiple times is corresponding to one of the plurality of random access response windows;
continuing to transmit (S230), by the terminal device, a subsequent random access signal to the network device if the terminal device fails to detect presence of the random access response transmitted by the network device within the plurality of random access response windows; and
stopping transmitting, by the terminal device, a random access signal, which is not transmitted, of the random access signals which should be transmitted in multiple times and the subsequent random access signal to the network device when the random access response transmitted by the network device is detected by the terminal device before ending of any one of the plurality

of random access response windows.

7. The method of claim 6, wherein detecting (S220), by the terminal device, a random access response transmitted by the network device in a plurality of random access response windows corresponding to continuous transmissions in multiple times of random access signals comprises:

starting, by the terminal device, a random access response window corresponding to each of transmissions of the random access signals when the each transmission is completed by the terminal device, and detecting, by the terminal device, the random access response transmitted by the network device in the plurality of random access response windows.

8. The method of claim 6 or 7, wherein continuing to transmit (S230), by the terminal device, a subsequent random access signal to the network device comprises:

continuing to transmit, by the terminal device, the subsequent random access signal to the network device on a beam on which the random access signals are transmitted; or

continuing to transmit, by the terminal device, the subsequent random access signal to the network device on a beam other than that on which the random access signals are transmitted.

9. The method of any one of claims 6 to 8, wherein continuing to transmit (S230), by the terminal device, a subsequent random access signal to the network device if the terminal device fails to detect presence of the random access response transmitted by the network device within the plurality of random access response windows comprises:

continuing to transmit, by the terminal device, the subsequent random access signal to the network device if the terminal device fails to detect presence of the random access response transmitted by the network device before ending of each of the plurality of random access response windows.

10. The method of any one of claims 6 to 8, wherein continuing to transmit (S230), by the terminal device, a subsequent random access signal to the network device if the terminal device fails to detect presence of the random access response transmitted by the network device within the plurality of random access response windows comprises:

continuing to transmit, by the terminal device, the subsequent random access signal to the network device if the terminal device fails to detect presence of the random access response transmitted by the network device before ending of any one of the plurality of random access

response windows.

11. A device (500, 600) for random access, comprising:a transceiver (510, 610) and a processor (520, 620), wherein the transceiver (510, 610) and the processor (520, 620) are configured to implement a method (100) for random access of any one of claims 1 to 5, or implement a method (200) for random access of any one of claims 6 to 10.