WHAT IS CLAIMED IS:

1. A charging control method, applicable for a device to be charged, comprising:

in a charging process of the device to be charged, performing K constant current charging stages on a battery in the device to be charged, wherein K is a positive integer greater than or equal to 1;

in each constant current charging stage of the K constant current charging stages, performing constant current charging on the battery with a preset current corresponding to the constant current charging stage until the battery is charged to a preset voltage corresponding to the constant current charging stage, wherein the preset voltage corresponding to the Kth constant current charging stage is a charging cut-off voltage greater than a rated voltage of the battery; and

when the voltage of the battery is detected to reach the charging cut-off voltage in the Kth constant current charging stage, stopping charging the battery,

wherein in each constant current charging stage of the K constant current charging stages, performing constant current charging on the battery with the preset current corresponding to the constant current charging stage until the battery is charged to the preset voltage corresponding to the constant current charging stage, comprises:

in the ith constant current charging stage of the first K-1 stages, performing constant current charging on the battery with an ith preset current until the battery is charged to an ith preset voltage, where i is a positive integer greater than or equal to 1 and less than or equal to K-1, an (i+1)th preset current is less than the ith preset current; and

in the Kth constant current charging stage, performing constant current charging on the battery with a Kth preset current until the battery is charged to a Kth preset voltage, wherein the Kth preset current is less than the (K-1)th preset current, and the Kth preset voltage is the charging cut-off voltage; and

wherein the ith preset voltage is greater than the rated voltage of the battery.

2. The method according to claim 1, further comprising:

detecting the voltage of the battery in each constant current charging stage.

3. The method according to claim 2, after detecting the voltage of the battery in each constant current charging stage, further comprising:

when detecting that the voltage of the battery is equal to the ith preset voltage, controlling the device to be charged to enter the (i+1)th constant current charging stage, and performing constant current charging on the battery with the (i+1)th preset current.

4. The method according to claim 2, after detecting the voltage of the battery in each constant current charging stage, further comprising:

when detecting that the voltage of the battery is equal to the ith preset voltage, performing constant voltage charging on the battery with the ith preset voltage; and

when detecting that the current of the battery is equal to the (i+1)th preset current, controlling the device to be charged to enter the (i+1)th constant current charging stage, and performing constant current charging on the battery with the (i+1)th preset current.

5. The method according to claim 4, further comprising:

detecting the current entering the battery in each constant current charging stage.

6. The method according to any one of claims 1-5, wherein a charging mode of the device to be charged comprises a wireless charging mode and a wired charging mode, and the method further comprises:

charging the battery in the wireless charging mode or the wired charging mode by selecting the charging mode.

7. The method according to any one of claims 1-6, wherein the battery comprises one or more cells.

8. A charging control device, applicable for a device to be charged, wherein the charging control device comprises a charging unit, and a control unit,

the charging unit is configured to, in a charging process of the device to be charged, perform K constant current charging stages on a battery in the device to be charged, where K is a positive integer greater than or equal to 1;

the charging unit is further configured to, in each constant current charging stage of the K constant current charging stages, perform constant current charging on the battery with a preset current corresponding to the constant current charging stage until the battery is charged to a preset voltage corresponding to the constant current charging stage, wherein the preset voltage corresponding to the Kth constant current charging stage is a charging cut-off voltage greater than a rated voltage of the battery; and

the control unit is configured to, when the voltage of the battery reaches the charging cut-off voltage in the Kth constant current charging stage, stop charging the battery,

wherein the charging unit is configured to:

in the ith constant current charging stage of the first K-1 stages, perform constant current charging on the battery with an ith preset current until the battery is charged to an ith preset voltage, where i is a

positive integer greater than or equal to 1 and less than or equal to K-1, an (i+1)th preset current is less than the ith preset current; and

in the Kth constant current charging stage, perform constant current charging on the battery with a Kth preset current until the battery is charged to a Kth preset voltage, where the Kth preset current is less than the (K-1)th preset current, and the Kth preset voltage is the charging cut-off voltage; and

wherein the ith preset voltage is greater than the rated voltage of the battery.

9. The charging control device according to claim 8, further comprising a detecting unit,

wherein the detecting unit is configured to detect the voltage of the battery in each constant current charging stage.

10. The charging control device according to claim 9, wherein in the ith constant current charging stage, the control unit is further configured to, when the detecting unit detects that the voltage of the battery is equal to the ith preset voltage, control the device to be charged to enter the (i+1)th constant current charging stage, and perform constant current charging on the battery with the (i+1)th preset current.

11. The charging control device according to claim 9, wherein in the ith constant current charging stage, the charging unit is further configured to, when the detecting unit detects that the voltage of the battery is equal to the ith preset voltage, perform constant voltage charging on the battery with the ith preset voltage; and

the control unit is further configured to, when the detecting unit detects that the current of the battery is equal to the (i+1)th preset current, control the device to be charged to enter the (i+1)th constant current charging stage, and perform constant current charging on the battery with the (i+1)th preset current.

12. The charging control device according to claim 11, wherein the detecting unit is further configured to detect the current entering the battery in each constant current charging stage.

13. The charging control device according to any one of claims 8-12, wherein a charging mode of the device to be charged comprises a wireless charging mode and a wired charging mode, and the control unit is further configured to control the device to be charged to charge the battery in the wireless charging mode or the wired charging mode by selecting the charging mode.

14. The charging control device according to any one of claims 8-13, wherein the battery comprises one or more cells.

15. A charging control device, comprising a memory and a processor, wherein the memory is

configured to store a computer program capable of running on the processor, and the processor is configured to implement steps of the method according to any one of claims 1 to 7 when running the computer program.

16. A device to be charged, comprising:

a battery; and

a charging control device configured to control charging of the battery based on the charging control method according to any one of claims 1-7.