

(19) **United States**(12) **Patent Application Publication**  
**KWON et al.**(10) **Pub. No.: US 2022/0368157 A1**(43) **Pub. Date: Nov. 17, 2022**(54) **WIRELESS CHARGING METHOD AND APPARATUS THEREFOR****Publication Classification**(51) **Int. Cl.****H02J 50/10** (2006.01)**H02J 7/00** (2006.01)(52) **U.S. Cl.****CPC** ..... **H02J 50/10** (2016.02); **H02J 7/007192** (2020.01); **H02J 50/60** (2016.02)(71) Applicant: **LG INNOTEK CO., LTD.**, Seoul (KR)(72) Inventors: **YONG IL KWON**, Seoul (KR); **JAY PARK**, Seoul (KR)(73) Assignee: **LG INNOTEK CO., LTD.**, Seoul (KR)(21) Appl. No.: **17/872,708**(22) Filed: **Jul. 25, 2022****Related U.S. Application Data**

(63) Continuation of application No. 16/761,199, filed on May 1, 2020, now Pat. No. 11,437,849, filed as application No. PCT/KR2018/013258 on Nov. 2, 2018.

**Foreign Application Priority Data**

(30)

Nov. 2, 2017 (KR) ..... 10-2017-0145585

Nov. 9, 2017 (KR) ..... 10-2017-0148699

(57)

**ABSTRACT**

A wireless charging method in a wireless power transmitter, the method including sensing an object in a charging region, measuring a quality factor value, receiving information including a reference quality factor value, detecting a foreign object using the measured quality factor value and the reference quality factor value, and transmitting a response signal that includes ACK information or NAK information depending on whether or not the foreign object is detected. Further, the wireless power transmitter transmits information including a first guaranteed power value when the response signal includes the ACK information, and transmits information including a second guaranteed power value when the response signal includes the NAK information, and the first guaranteed power value is greater than the second guaranteed power value.

