



US 20220377930A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0377930 A1**
(43) **Pub. Date: Nov. 24, 2022**(54) **USER DEVICE AND CASE**(30) **Foreign Application Priority Data**(71) Applicant: **Showa Denko Materials Co., Ltd.**,
Chiyoda-ku, Tokyo (JP)

Jun. 19, 2019 (JP) 2019-113829

(72) Inventors: **Tsuyoshi MORIMOTO**, Chiyoda-ku,
Tokyo (JP); **Naoki FURUKAWA**,
Chiyoda-ku, Tokyo (JP); **Atsuko**
SANO, Chiyoda-ku, Tokyo (JP);
Hiroshi YOKOTA, Chiyoda-ku, Tokyo
(JP)**Publication Classification**(51) **Int. Cl.**
H05K 7/20 (2006.01)
H05K 5/00 (2006.01)(52) **U.S. Cl.**
CPC **H05K 7/2039** (2013.01); **H05K 5/0086**
(2013.01); **H05K 7/20963** (2013.01); **H04M**
1/026 (2013.01)(21) Appl. No.: **17/619,307**(22) PCT Filed: **Jun. 16, 2020**(86) PCT No.: **PCT/JP2020/023573**

§ 371 (c)(1),

(2) Date: **Dec. 15, 2021**(57) **ABSTRACT**

A user device that can be touched by a user includes a heat source that can generate heat; a case body covering the heat source; and a polymer-containing heat storage body attached to the case body.

