

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0213500 A1 HIRAO et al.

Jun. 27, 2024 (43) **Pub. Date:**

(54) ELECTRICALLY CONDUCTIVE MEMBER, ELECTROCHEMICAL CELL DEVICE, MODULE, MODULE HOUSING DEVICE, SLURRY, ELECTRICALLY CONDUCTIVE MEMBER MANUFACTURING METHOD, CONDUCTIVE MATERIAL, AND CONDUCTIVE POWDER MATERIAL

(71) Applicant: **KYOCERA Corporation**, Kyoto-shi, Kyoto (JP)

(72) Inventors: Kazuki HIRAO, Kirishima-shi, Kagoshima (JP); Akihiro HARA, Kirishima-shi, Kagoshima (JP); Atsuki

YAMAGUCHI, Kirishima-shi,

Kagoshima (JP)

(21) Appl. No.: 18/554,984

(22) PCT Filed: Apr. 13, 2022

(86) PCT No.: PCT/JP2022/017724

§ 371 (c)(1),

(2) Date: Oct. 11, 2023

(30)Foreign Application Priority Data

Apr. 13, 2021 (JP) 2021-067807

Publication Classification

(51) Int. Cl. H01M 8/0217 (2016.01)C09D 1/00 (2006.01)C09D 5/24 (2006.01)H01M 8/0228 (2016.01)H01M 8/12 (2016.01)

(52) U.S. Cl.

CPC H01M 8/0217 (2013.01); C09D 1/00 (2013.01); CO9D 5/24 (2013.01); H01M **8/0228** (2013.01); *H01M* 2008/1293 (2013.01)

(57)**ABSTRACT**

An electrically conductive member includes a base member and a coating layer. The base member contains chromium. The coating layer covers the base member. The coating layer contains a conductive oxide and a first oxide that is an oxide of a first element whose absolute values of first ionization energy and free energy of formation of an oxide are smaller than those of chromium.

