



US 20240215258A1

(19) **United States**

(12) **Patent Application Publication**
Ramaswamy et al.

(10) **Pub. No.: US 2024/0215258 A1**

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

(54) **INTEGRATED ASSEMBLIES AND METHODS OF FORMING INTEGRATED ASSEMBLIES**

Publication Classification

(71) Applicant: **Micron Technology, Inc.**, Boise, ID (US)

(72) Inventors: **Durai Vishak Nirmal Ramaswamy**, Boise, ID (US); **Marcello Mariani**, Milano (IT); **Giorgio Servalli**, Fara Gera D'Adda (IT)

(73) Assignee: **Micron Technology, Inc.**, Boise, ID (US)

(21) Appl. No.: **18/429,677**

(22) Filed: **Feb. 1, 2024**

Related U.S. Application Data

(63) Continuation of application No. 17/381,040, filed on Jul. 20, 2021, now Pat. No. 11,917,834.

(51) **Int. Cl.**

H10B 53/50 (2006.01)

G11C 11/22 (2006.01)

H10B 53/10 (2006.01)

H10B 53/30 (2006.01)

H10B 53/40 (2006.01)

(52) **U.S. Cl.**

CPC **H10B 53/50** (2023.02); **G11C 11/221**

(2013.01); **H10B 53/10** (2023.02); **H10B**

53/30 (2023.02); **H10B 53/40** (2023.02)

(57)

ABSTRACT

Some embodiments include an integrated assembly having a first bottom electrode adjacent to a second bottom electrode. An intervening region is directly between the first and second bottom electrodes. Capacitor-insulative-material is adjacent to the first and second bottom electrodes. The capacitor-insulative-material is substantially not within the intervening region. Top-electrode-material is adjacent to the capacitor-insulative-material. Some embodiments include methods of forming integrated assemblies.

