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(71) Applicant: LUMILEDS LLC [US/US]; 370 W. Trimble
Road, San Jose, California 95131 (US).

(72) Inventors: **TEO, Yeow Meng**; c/o Lumileds Singapore
Pte. Ltd., 190 Yishun Ave 7, Singapore 768925 (SG). **NG,
Wee-Hong**; c/o Lumileds Singapore Pte. Ltd., 190 Yishun
Ave 7, Singapore 768925 (SG). **MAH, Pei-Chee**; c/o Lu-
mileds Singapore Pte. Ltd., 190 Yishun Ave 7, Singapore
768925 (SG). **WONG, Chee Chung James**; c/o Lumileds
Singapore Pte. Ltd., 190 Yishun Ave 7, Singapore 768925
(SG). **SOH, Geok Joo**; c/o Lumileds Singapore Pte. Ltd.,
Singapore 768925 (SG).

(74) Agent: **WHITNEY, Karen M.**; Servilla Whitney LLC, 33
Wood Avenue South, Suite 830, Iselin, New Jersey 08830
(US).

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(54) Title: FLIP CHIP MICRO LIGHT EMITTING DIODES

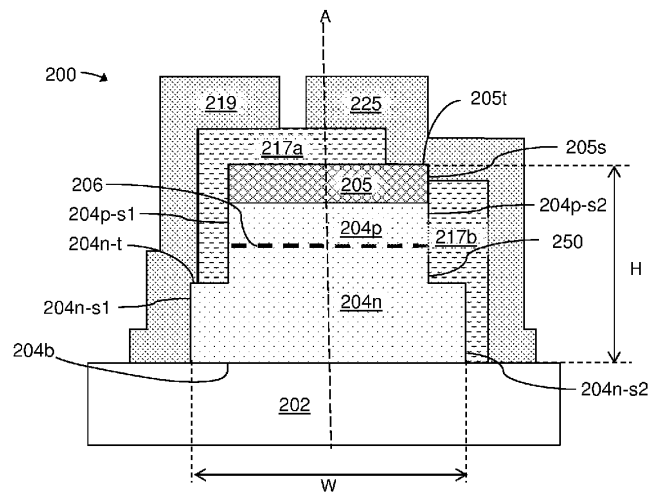


FIG. 2A

(57) Abstract: A micro-light emitting diode (uLED) device comprises: a mesa comprising: a plurality of semiconductor layers including an n-type layer, an active layer, and a p-type layer; a p-contact layer contacting the p-type layer; a cathode contacting the first sidewall of the n-type layer; a first region of dielectric material that insulates the p-contact layer, the active layer, and a first sidewall of the p-type layer from the cathode; an anode contacting the top surface of the p-contact layer; and a second region of dielectric material that insulates the active layer, a second sidewall of the p-type layer, and the second sidewall of the n-type layer from the anode. The top surface of the p-contact layer has a different planar orientation compared to the first and second sidewalls of the n-type layer. Methods of making and using the uLED devices are also provided.

[Continued on next page]

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