

Oral Presentation

[MEET1]Novel Materials, Fundamental Components and Process Technologies

Chair: Jin Jang (KyungHee University)

Co-Chair: Chien-chung Lin (National Chiao Tung University)

Thu. Nov 28, 2019 9:00 AM - 10:30 AM Conference Hall (1F)

10:10 AM - 10:30 AM

[MEET1-4]Effects on X-ray Imaging Quality by Manipulation of Cold Cathode Emitter Density

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Keywords:x-ray source, x-ray resolution, cold cathode emitters, field emission

The relationship between the density of electron emitters and x-ray image quality has been investigated. Under diode mode, x-ray images have been successfully acquired even under 30kV of bias. The electron emitters were selectively patterned VACNTs. With respect to the inter-emitter pitch, even at the same electrical energy, different patterns showed different image qualities. By optimizing the CNT pattern, we expect that we can develop a high-resolution x-ray source without using additional focusing components.