



Figure S2. Charging of the conductor metal net with an alternating voltage amplifier (VA) and a spark generated by a charged conductor net (C-CN). (A) The VA is an apparatus to enhance the initial voltage (100 V) to the desired voltage (10 kV). The VA was linked to a grounded line (GL), and the charging probe (CP) was connected to a conductor net with a high-voltage cable (HVC). The C-CN formed a discharge space (DS) in the surrounding area. (B) The C-CN was held horizontally, and a grounded iron nail (G-IN) was held vertically under the C-CN. (C) The G-IN was gradually brought closer to the C-CN. The arc discharge-mediated spark (red arrow) occurred when the G-IN reached the DS. This distance from the C-CN was denoted the SD (spark-distance). The bi-directional arrow represents alternating current.