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The way to reduce electrical charge of a droplet dispensed from a pipette tip[1] DONGWHI CHOI, HORIM LEE, DO JIN IM, DONG SUNG KIM, POSTECH — Recently, we reported that a conventional pipetting always makes a charged droplet by spontaneous electrical charging process. The charge amount depends on the constituents of the droplet, on coating material of pipette tip and on atmospheric humidity. We clarified that this natural electrification of a droplet is originated from the charge separation between a droplet and pipette tip surface. The electrical interaction between charged droplet hanging on the end of the pipette tip and the pipette tip inner surface makes the droplet hard to detach from the pipette tip. To suggest the way to suppress the electrification phenomenon, we investigate the influence of the polymer composition on the amount of the charge of the droplet. The Faraday cup method is performed to measure the charge amount of the droplet. The result can be used to reduce charge amount of a droplet dispensed from the micropipette tip effectively.

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