

Abstract Submitted  
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**Contact Angle Hysteresis of an Evaporating Droplet**<sup>1</sup> JEONGEUN RYU, SANGHYUN LEE, KWAN HYOUNG KANG, Pohang University of Science and Technology (POSTECH) — Contact angle and contact line dynamics of an evaporating droplet exhibit interesting features. During the evaporation process, contact angle decreases with time and becomes smaller than the static receding contact angle; and contact line is deformed and locally pinned. In this work, we attempted to explain the phenomenon in terms of contact angle hysteresis. We conjecture that impurities inside a droplet promote the heterogeneity of surface and induce the rapid decrease of contact angle lower than the receding contact angle. Based on our conjecture, we investigate experimentally and theoretically the effect of impurities as a source of contact angle hysteresis and subsequent change of contact angle.

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