***Supporting Information***

# Effect of Holding Temperature on Growth of Ruby Crystal Films via Molybdenum Trioxide Flux Evaporation–Solubility of Aluminum Oxide, Growth Rate, and Material Balance

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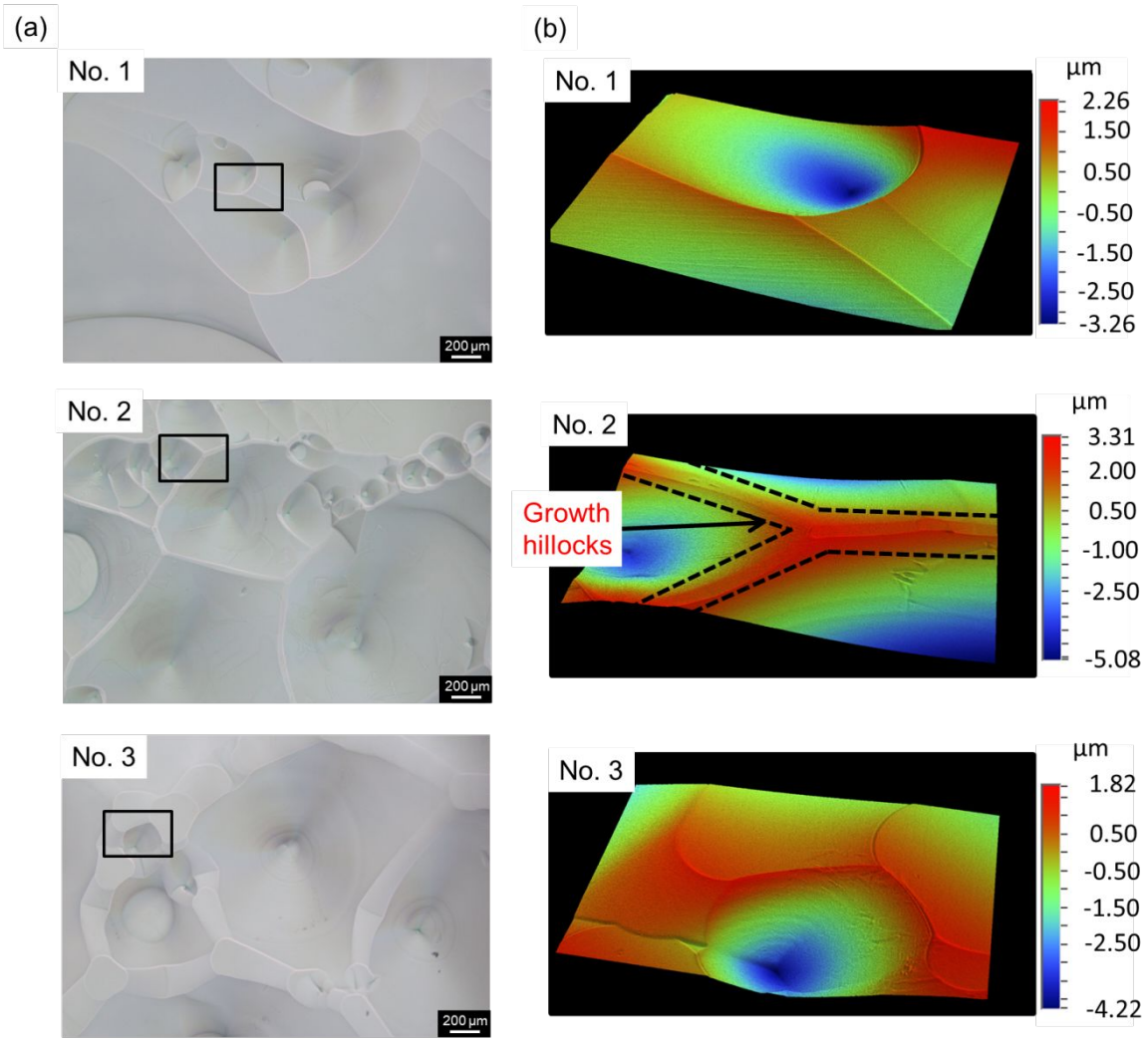


**Figure S1.** Photographs to judge the commencement of ruby crystal growth at 1050 °C. (a) Optical micrographs of the substrate surfaces obtained under the respective conditions. (b) 3D optical micrographs of the corresponding parts shown in (a).

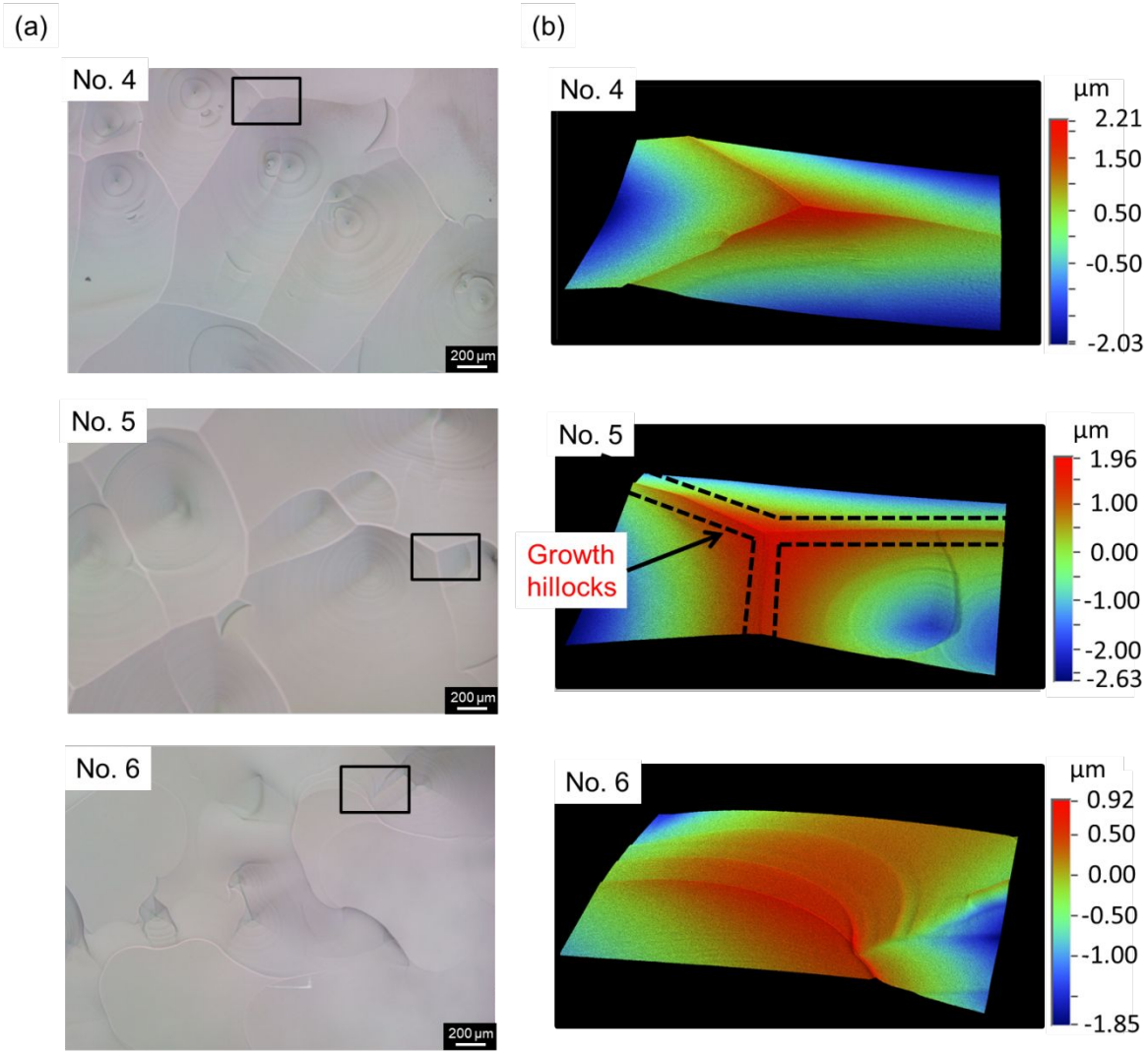


**Figure S2.** Photographs to judge the commencement of ruby crystal growth at 1150 °C. (a) Optical micrographs of the substrate surfaces obtained under the respective conditions. (b) 3D optical micrographs of the corresponding parts shown in (a).

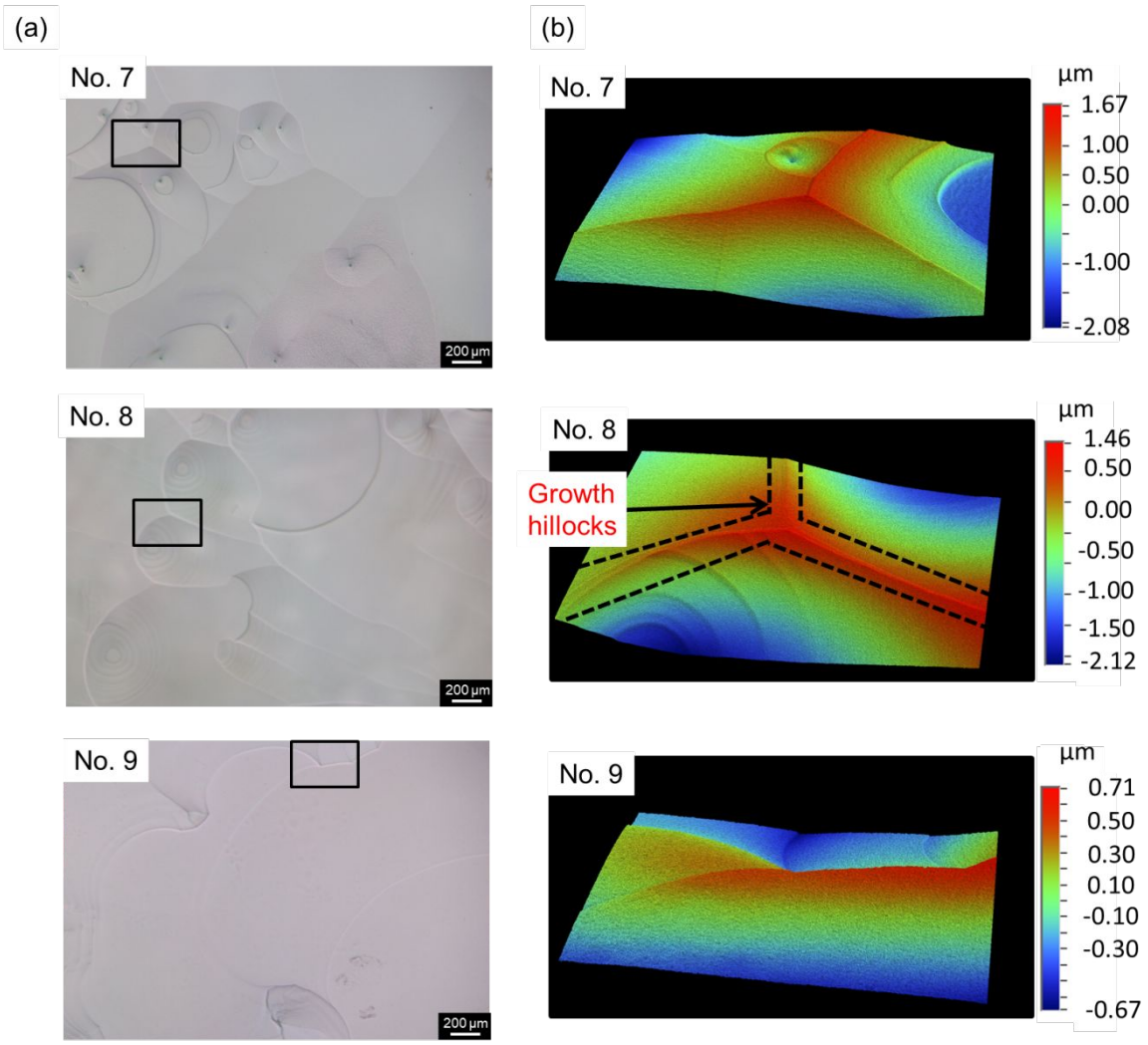


**Figure S3.** Photographs to judge the commencement of ruby crystal growth at 1200 °C. (a) Optical micrographs of the substrate surfaces obtained under the respective conditions. (b) 3D optical micrographs of the corresponding parts shown in (a).

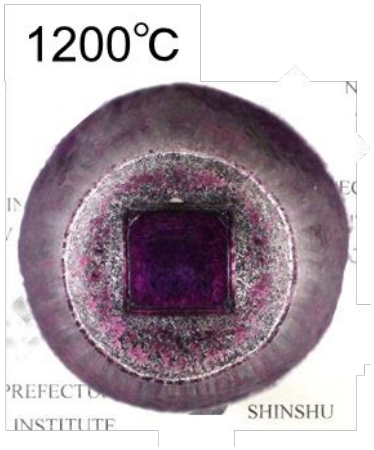


**Figure S4.** The inside of a crucible after the flux had evaporated completely at 1200 °C.