Nanowires Enhanced Dimensional Accuracy in Acrylate Resin-Based 3D Printing

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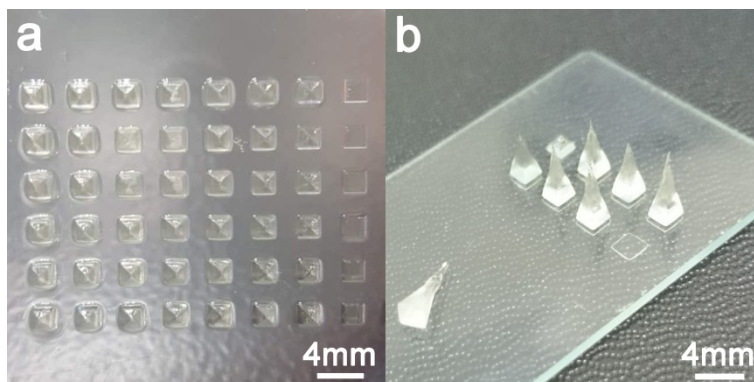E-mail: jiaoxl@sdu.edu.cn; wangf@imre.a-star.edu.sg

Fig. S1 a), cubes array of 2mm × 2mm printed by ASIGA PICO 2 3D printer with HDDA resins, from which flat tops at initial stage and pyramid tops with longer exposure time were observed. **b),** cone structures of neat HDDA formed after longer light exposure time.

Fig. S2 Cubes array of 2mm × 2mm printed by ASIGA PICO 2 3D printer with γ-Al_2O_3 incorporated HDDA resins.
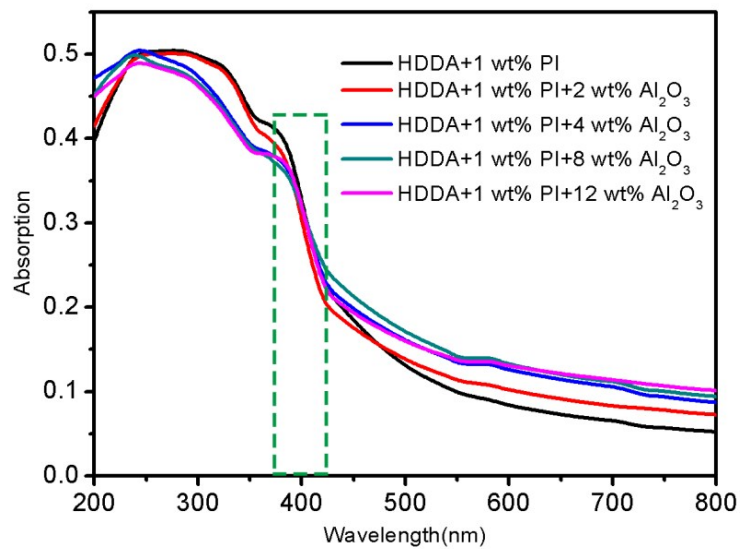

Fig. S3 UV-vis spectra of HDDA resins without and with different amount of γ-Al_2O_3 nanowires: 2 wt%, 4 wt%, 8 wt% and 12 wt%.
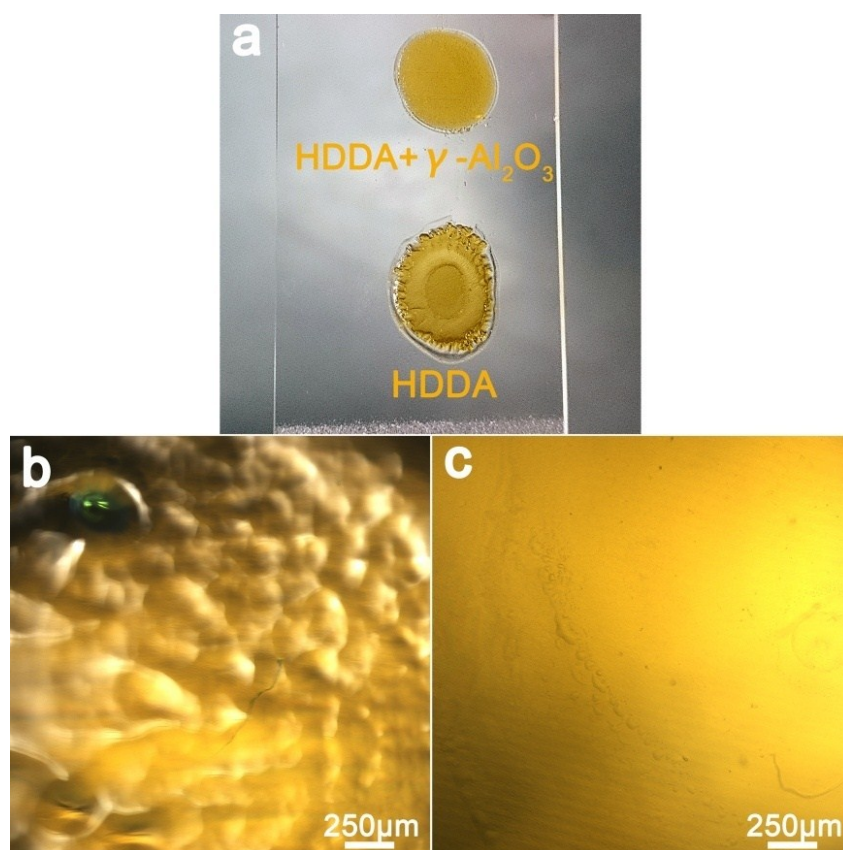
Fig. S4 Shrinkage comparison of resins with and without γ-Al_2O_3 nanowires: **a)**, Smooth and even surface of cured HDDA resin with γ-Al_2O_3 nanowires, while serious shrinkage of HDDA without γ-Al_2O_3 nanowires was observed. Images of optical microscope (**b, c,** HDDA resins without and with γ-Al_2O_3 nanowires) revealed further insight of this phenomenon.