Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supplementary Information

Spatiotemporally controllable acoustothermal heating and its application to disposable thermochromic displays

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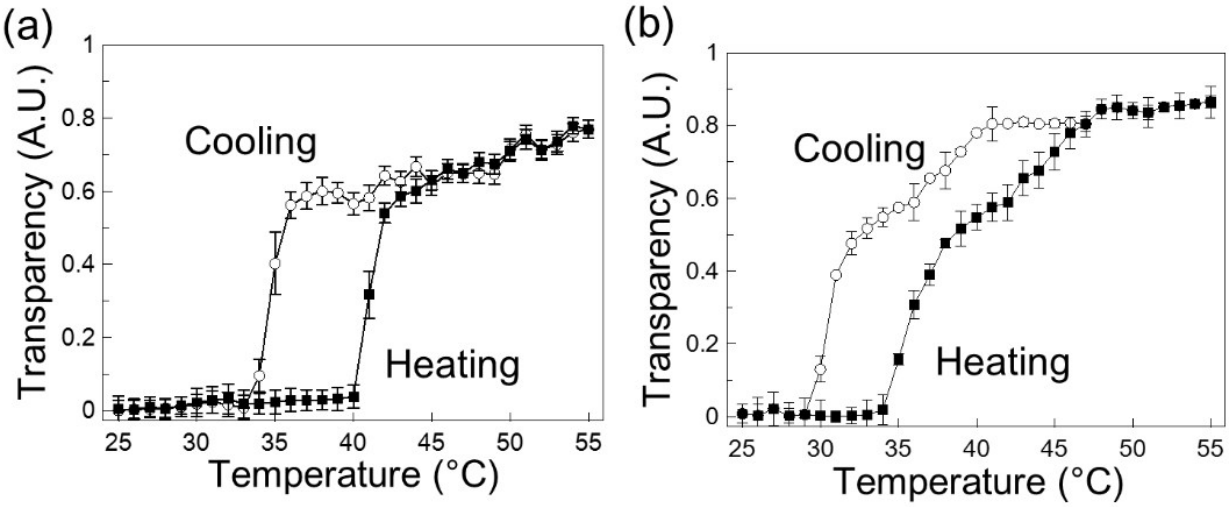

Fig. S1 Optical transparency of the thermochromic film that changes its colour from black to translucent (a) with a colour transition temperature of 40°C; (b) with the colour transition temperature range of 30°C to 50°C.

Fig. S1 shows the normalized optical transparency of the thermochromic films used in the paper. We put a white label paper strip (1×1 cm^2) covered with two types of thermochromic films on a hot plate, and the average greyscale intensity was quantified using MATLAB. For the normalization, the average greyscale intensities of the white label paper strip and the thermochromic film were used as the maximum and minimum values, respectively. The error bar represents the standard deviation from five independent measurements. The offset from the maximum transparency value results from translucency of the thermochromic film with a temperature above the colour transition temperature.

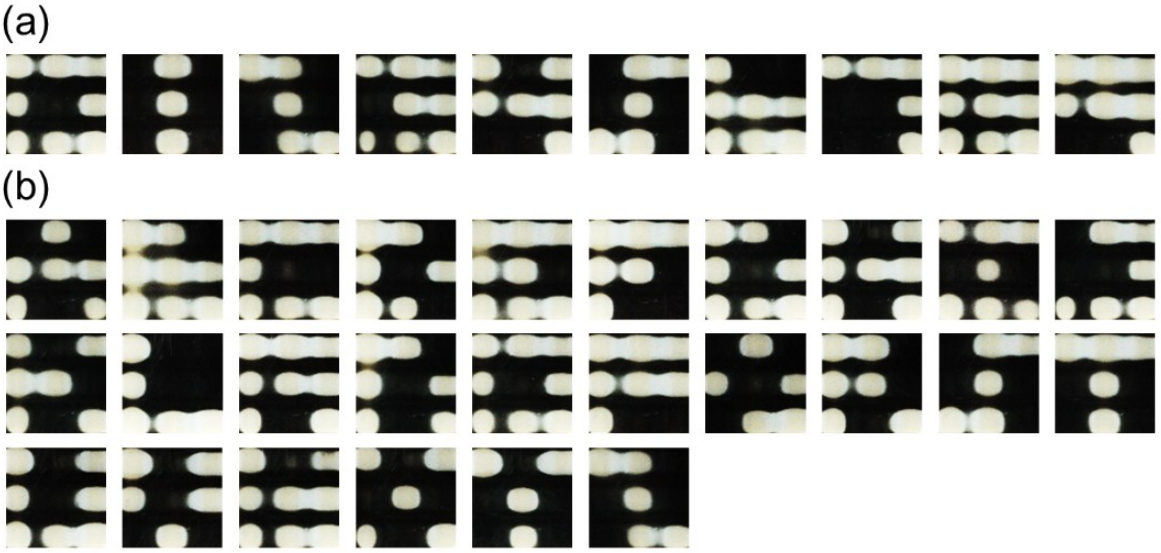

Fig. S2 (a) Numbers from '0' to '9' (b) English alphabets from 'A' to 'Z' displayed in the proposed TCD system with a 3 × 3 interdigital transducer array.

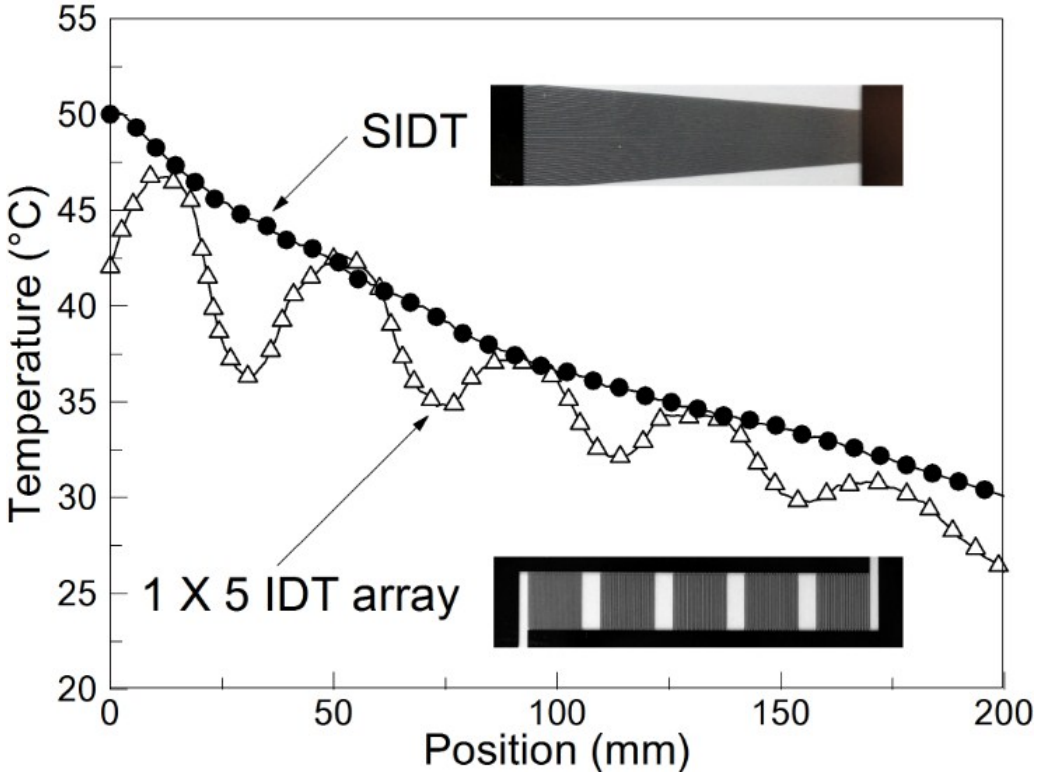

Fig. S3 A continuous linear temperature profile by slanted interdigital transducer and a step-function like linear temperature profile by a 1 × 5 interdigital transducer array.