Supporting Information for

Manipulating Frontal Polymerization and Instabilities with Phase-Changing Microparticles

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This document includes:

Figures S1-S2

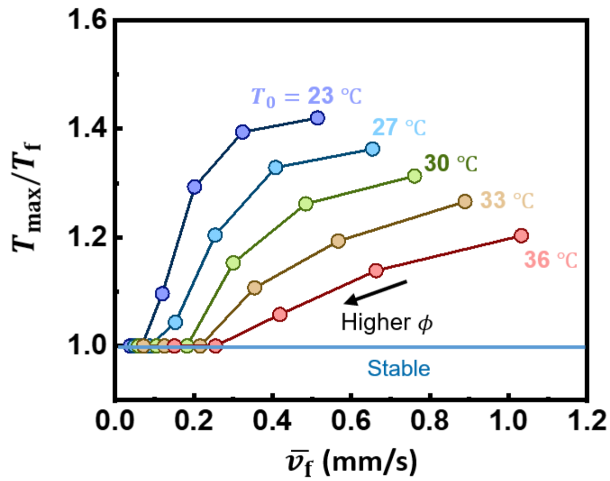

Figure S1. Temperature ratio $T_{\max}/T_{\mathrm{f}}$ as functions of average front velocity $\bar{v}_{\mathrm{f}}$ at various initial temperatures T_0. At a specific initial temperature T_0, a higher volume fraction of the PCL microparticles can reduces the instability (a temperature ratio close to 1) but compromises on $\bar{v}_{\mathrm{f}}$. However, such compromise will be more acceptable at a higher T_0, where a higher $\bar{v}_{\mathrm{f}}$ can be achieved at a given $T_{\max}/T_{\mathrm{f}}$ (to the bottom-right of the graph).

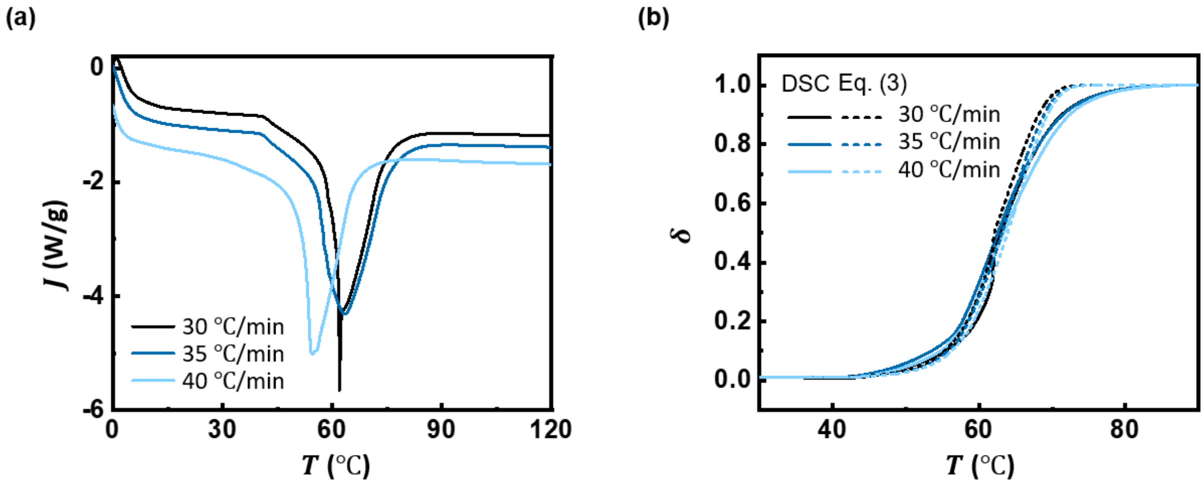

Figure S2. (a) DSC measurements of PCL microparticles at various ramping rates. The endothermic peaks indicate a melting enthalpy H_p of 89.0 ± 2.0 J/g. (b) Evolutions of the degree of melting in PCL microparticles measured in experiments and predicted by the melting kinetics model in (3) in the main text.