

Table S4: Decision variables calculated in the case of considering phase transitions.

individual	zones 1~5(°C)	zone 6(°C)	zone 7(°C)	zones 8~9(°C)	belt speed(cm/min)
1	173.406178050352	190.299480962866	232.820519206319	259.520843745902	90.3889812105954
20	173.412882876882	190.334865462780	232.813333467118	259.518626521544	90.3889799881188
22	173.411973858974	190.336242418321	232.814187167330	259.518488738916	90.3889799816190
23	173.411956960575	190.336251988680	232.814198879066	259.518488096033	90.3889799816112
28	173.370424689896	190.553653044524	232.784427046170	259.513997119781	90.3889322870352
29	173.370684218937	190.553571880500	232.784423520838	259.513979880158	90.3889780875678
30	173.370684159594	190.553571624880	232.784423493538	259.513979900482	90.3889782545808
32	173.370684159780	190.553571619373	232.784423493755	259.513979901316	90.3889782577656
37	173.370684246093	190.553571847825	232.784423496057	259.513979883852	90.3889783063524
78	173.370682466448	190.553574493873	232.784424355760	259.513980791664	90.3889817825526