

**Table S1:** Detailed experimental design, results for each performed experiments, predictions and residuals. The residuals explains the difference between the detected and the expected results in a data-driven prediction model. Inulin content is expressed in mg/g of FD matrix.

<b>Observations</b>	<b>Repetition</b>	<b>Temperature (°C)</b>	<b>Time (min)</b>	<b>Inulin (mg/g)</b>	<b>Prediction</b>	<b>Residual</b>	<b>Std. residual</b>
Obs1	1	80	60	39.30	38.981	0.315	0.179
Obs2	1	80	10	26.71	27.971	-1.258	-0.716
Obs3	1	30	60	21.68	23.567	-1.887	-1.074
Obs4	1	55	35	22.94	23.882	-0.944	-0.537
Obs5	1	30	10	22.94	21.680	1.258	0.716
Obs6	2	80	60	38.67	38.981	-0.315	-0.179
Obs7	2	80	10	29.23	27.971	1.258	0.716
Obs8	2	30	60	25.45	23.567	1.887	1.074
Obs9	2	55	35	24.83	23.882	0.944	0.537
Obs10	2	30	10	20.42	21.680	-1.258	-0.716