

Table S1 First-order reaction rate constants and fitting coefficients (R^2) for allicin degradation kinetics

Factor	Level	k	SE	T	R^2
T (°C)	45	0.0032	0.0002	14.6414	0.9377
	55	0.0111	0.0008	14.0260	0.9690
	65	0.0222	0.0010	21.7154	0.9922
	75	0.0517	0.0020	25.4523	0.9890
	85	0.0916	0.0022	42.5361	0.9971
Content (mmol L ⁻¹)	95	0.1468	0.0095	15.5122	0.9849
	60	0.7344	0.0224	32.7522	0.9967
	30	0.3692	0.0131	28.2522	0.9933
	15	0.1428	0.0089	16.0053	0.9716
	7.5	0.0764	0.0048	15.7852	0.9705
	3.25	0.0460	0.0029	15.7729	0.9567

Table S2 Rate constants, reaction constants (a_1 , a_2) and fitting coefficients (R^2) for the two-first order kinetics of allicin

Factor	Level	k_1	k_2	a_1	a_2	R^2
T (°C)	45	0.0092	0.0011	0.4844	0.4996	0.9986
	55	0.0295	0.0058	0.4148	0.5673	0.9965
	65	0.0255	0.0031	0.9127	0.0792	0.9941
	75	0.0407	0.2235	0.8273	0.1777	0.9965
	85	-0.0958	0.0947	0.0006	1.0159	0.9974
Content (mmol L ⁻¹)	95	0.1512	0.1512	0.5146	0.5146	0.9727
	60	1.2164	0.4315	0.5746	0.4254	1.0000
	30	0.2703	1.2049	0.7314	0.2686	0.9996
	15	0.3258	0.0717	0.4485	0.5377	0.9983
	7.5	0.1423	0.0237	0.6527	0.3467	0.9997
	3.25	0.1159	0.0158	0.5009	0.5013	0.9986