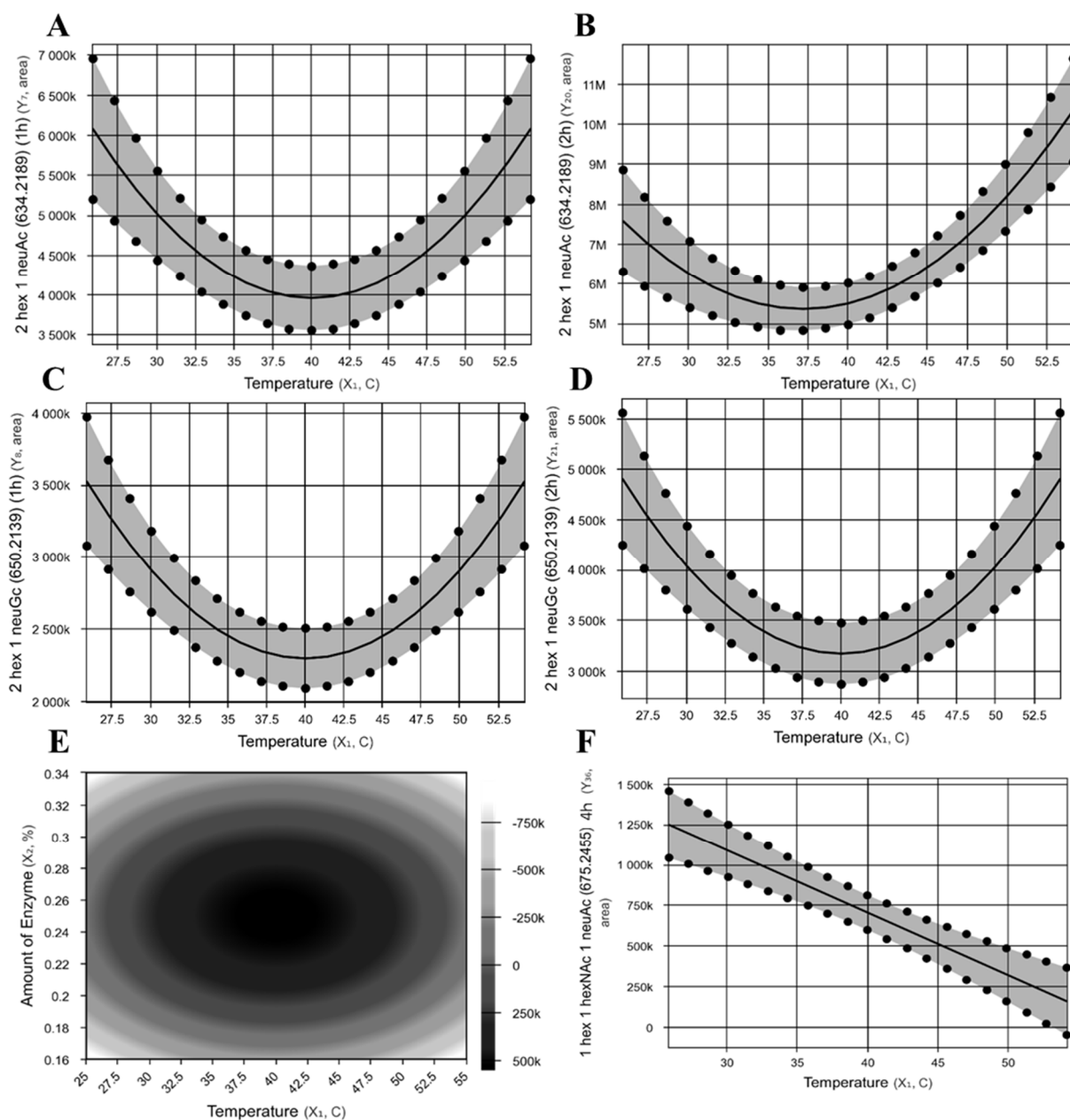


Supplemental materials

Table S1. Variables and levels evaluated in the experimental design to optimize lactose hydrolysis efficiency by *A. oryzae* β -galactosidase and preservation/formation of oligosaccharides.

Variable	Level				
	−1.41	−1	0	1	+1.41
Temperature (°C), x^1	25.9	30	40	50	54.1
Enzyme (%), x^2	0.18	0.20	0.25	0.30	0.32

¹ Complete 2^2 factorial design parameters, with 2 independent variables in 2 levels, 3 repetitions in the central point, and 4 axial points.



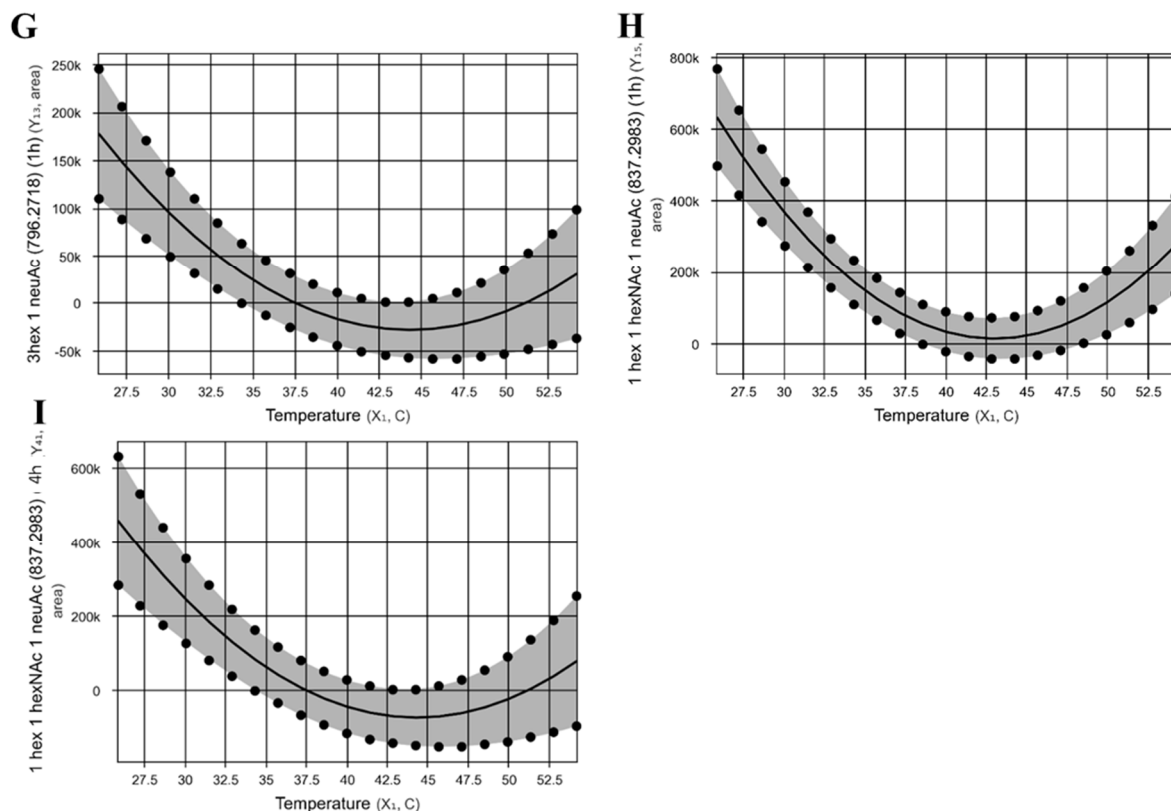


Figure S1. Contour curve for the abundance of the acidic oligosaccharides (A), 2 Hex 1 NeuAc (634.2189) (1 h); (B), 2 Hex 1 NeuAc (634.2189) (2 h); (C), 2 Hex 1 NeuGc (650.2139) (1 h); (D), 2 Hex 1 NeuGc (650.2139) (2 h); (E), 1 Hex 1 Hex Nac 1 NeuAc (675.2455) (2 h); (F), 1 Hex 1 HexNac 1 NeuAc (675.2455) (4 h); (G), 3 Hex 1 NeuAc (796.2718) (1 h); (H), 2 Hex 1 HexNac 1 NeuAc (837.2983) (1 h); (I), 2 Hex 1 HexNac 1 NeuAc (837.2983) (4 h).

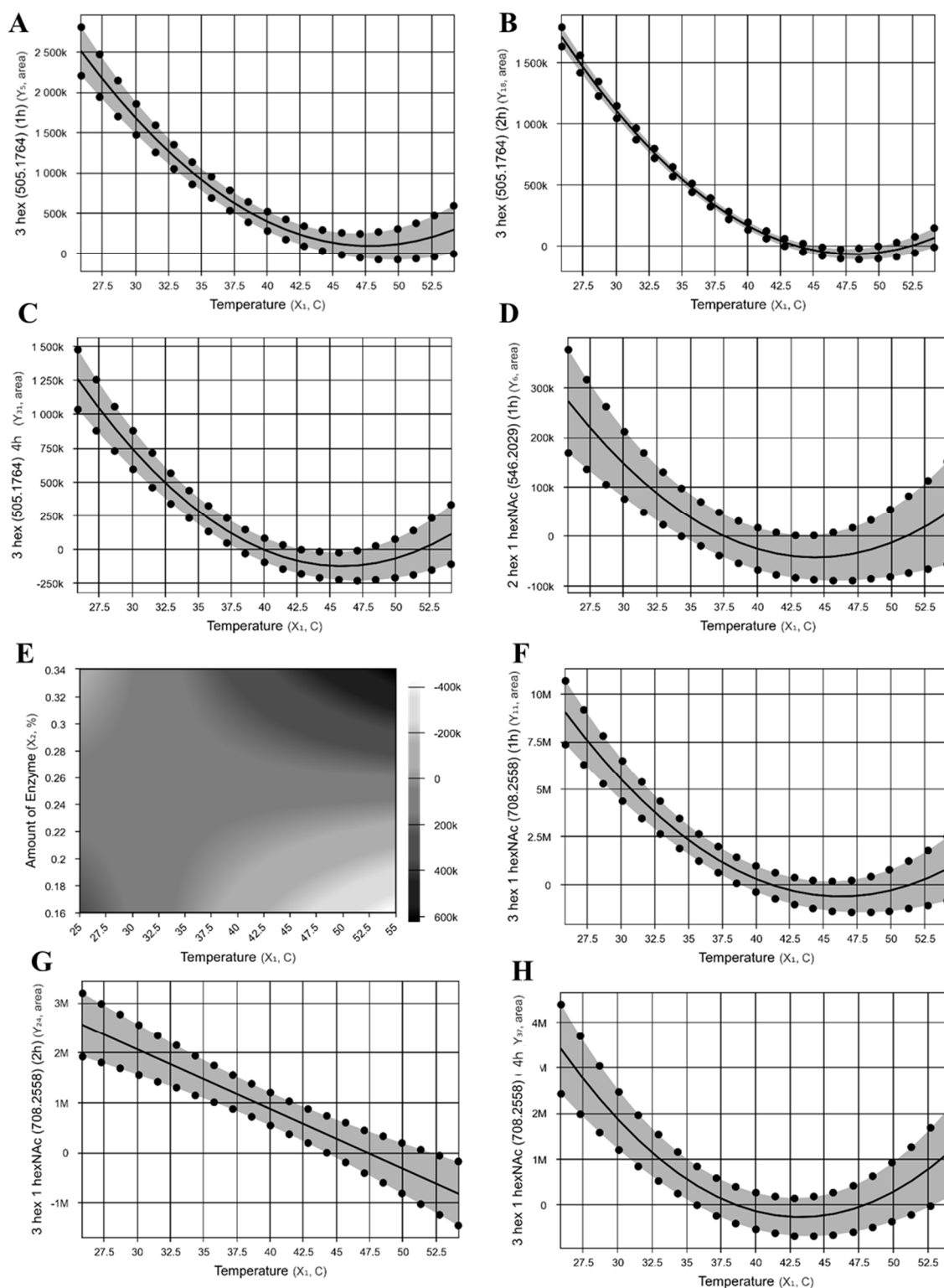


Figure S2. Contour curve for the abundance of the neutral oligosaccharides (A), 3 Hex (505.1764) (1 h); (B), 3 Hex (505.1764) (2 h); (C), 3 Hex (505.1764) (4 h); (D), 2 Hex 1 HexNAc (546.2029) (1 h); (E), 2 Hex 1 HexNAc (546.2029) (4 h); (F), 3 Hex 1 HexNAc (708.2558) (1 h); (G), 3 Hex 1 HexNAc (708.2558) (2 h); (H), 3 Hex 1 HexNAc (708.2558) (4 h); (I), 2 Hex 2 HexNAc (749.2823) (1 h); (J), 2 Hex 2 HexNAc (749.2823) (4 h).