

Equation A.1 The quadratic polynomial model explaining the relationship between the response and variables

$$R = \beta_0 + \beta_1 A + \beta_2 B + \beta_3 C + \beta_4 D + \beta_{12} AB + \beta_{13} AC + \beta_{14} AD + \beta_{23} BC + \beta_{24} BD + \beta_{34} CD + \beta_{11} A^2 + \beta_{22} B^2 + \beta_{33} C^2 + \beta_{44} D^2 \quad (1)$$

where R is the response; β_0 is the constant term; $\beta_1, \beta_2, \beta_3$ and β_4 are coefficients of linear terms; $\beta_{12}, \beta_{13}, \beta_{14}, \beta_{23}, \beta_{24}$ and β_{34} are coefficients of interaction terms; $\beta_{11}, \beta_{22}, \beta_{33}$ and β_{44} are coefficients of quadratic terms; and A, B, C and D are the variables.