
Summary: Mixture experimental design is the design which aims to study proportion of mixture components. The optimal design is an important research fields of mixture experiment design. D-optimal design is the most widely used among all optimal designs. This paper introduces the K model mixture experiments and the optimal criterion. After that, this paper puts forward the orthogonal block design of three-component second-order K model mixture experiments which satisfies D-optimal criterion. At last, we generalize the work to q-component case.

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