

## **Effects of sulphur Dioxide on Postharvest Quality and Quantity and Sulphate residue of Table Grapes in cold storage.**

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The effects of four levels of SO<sub>2</sub> (0.0%, 0.06%, 0.125% and 0.25%) on the qualitative and quantitative characteristics of two Persian grape cultivars "Keshmeshi seedless" and "Shahroudy" were evaluated during the cold storage in 1995-1997. This research was carried out a factorial experiment in a completely randomized design in cold storage at the laboratory of Horticultural Department, College of Agriculture, Tehran University.

The results showed that the effect of SO<sub>2</sub> on decay was significant at 1%, and maximum control was obtained at 0.25%. No significant difference was observed when treated with 0.125% SO<sub>2</sub>. However, increasing SO<sub>2</sub> concentration resulted in increased quantity and intensity of bleaching on the berries. At the increased concentrations, a linear relation was observed between bleaching on the berries and SO<sub>2</sub> concentration so that the highest bleaching occurred at the concentration of 0.25%. Increased storage periods also increased bleaching. The effect of SO<sub>2</sub> on weight loss, shattering, and rachis colour were also significant, decreasing rachis colour and shattering of berries. Amount of sulphite residue in fumigated fruits in storage, was 4/1 µg/g wich did not exceed the 10 ppm residue tolerance.