

# Comparing the Dyeing Properties of Synthetic Mordants and Hwangsu Spring

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## Abstract

To evaluate the Hwangsu spring as natural mordants effect on dyeing. The natural mordant effect of Hwangsu spring was analyzed by pH, temperature, trace elements and organic matter. Hwangsu spring having pH 2.42 and 14.4°C was harvested at the end of September, 2011, in Yeongcheon(Gyeongbuk Province, Korea) and left on a 0°C and 25°C before use. The Result of ICP analysis, it contain bned Fe(414.9 ppm), Al(88.9 ppm), Mn(4.9 ppm). Dyeing and post-mordant procedure; Fabrics(cotton, silk, rayon) were dyed with natural colorants(*Sopbora Japonica L.*, *Caesalpinia sappan L.*, *Allium cepa L.*) for 20 min at 80°C.

Hwangsu spring, aluminium sulfate 14-18H<sub>2</sub>O(Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> · 14-18H<sub>2</sub>O), iron sulfate · peptahydrate(FeSO<sub>4</sub> · 7H<sub>2</sub>O), copper sulfate pentahydrate(CuSO<sub>4</sub> · 5H<sub>2</sub>O) were used by post mordants. But in the case of *Caesalpinia sappan L.* was dyed after pre-mordanting with Al(II). The fabrics were dyed with each mordant solutions at 25°C for 10min. The colorless also was measured by color-differnce meter. Comparison with a synthetic mordants, the K/S values of cotton fabrics dyed with Hwangsu sping were increased.

## 참고문헌

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