

## Evaluation for Pollution Characteristics of Sincheon River and its Tributaries South Korea

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### Extended Abstract

The objective of this study is to analyze Sincheon basin water environment system in republic of Korea. The data were collected from 2010 August to 2016 December [1] including BOD, SS, T-N, T-P[2]. The Sincheon water system includes 15 tributaries such as BS, DG, SW, HC and SP stream. The results were as followed that the inflow of HC, SW and SP induced the increasing the pollution degree of BOD and T-N level for Sincheon river. Pollution degree of tributaries were higher than main stream of Sincheon [3].

The main reason of pollution of Suk-Woo was untreated wastewater, and it influenced downstream of SW. HC stream satisfied the water quality standard [4] [5], but Zn was designated as a monitoring contaminants, was high at 14.67 mg/L (standard 0.02~2.45mg/L) because of textile wastewater. SP stream was polluted by livestock wastewater of a nonpoint source. Ecological toxicity of BS and DG were higher than other tributaries. Ecological toxicity experiment used water fleas called daphnia magna. Daphnia magna was influenced by Cr<sup>6+</sup> of metal plating wastewater in DG.

In order to recover the Sincheon water system, it is necessary to manage textile, livestock and metal plating wastewater.

### References

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