

## 道路径流SS和COD污染特征及出流规律

### Pollution characteristics and discharge rules of SS and COD in road runoff

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中文摘要:

选择芜湖市火车站点进行长期监测, 采集降雨7次; 同时选择5个不同功能区, 采集典型降雨1次。探讨了道路径流中总固体悬浮物(SS)和化学需氧量(COD)的污染特征、影响因素及出流规律, 结果表明, 7次降雨事件SS和COD平均值范围分别为198-1 529 mg/L和66-367 mg/L。SS和COD污染较为严重。SS在不同功能区中大小顺序为: 工业区>居民区>商业区>交通区>文教区, 总COD大小顺序为: 工业区>交通区>居民区>商业区>文教区, 溶解态COD大小顺序为: 工业区>交通区>商业区>文教区>居民区, 颗粒态COD大小顺序为: 工业区>居民区>交通区>文教区>商业区。工业活动对地表径流SS和COD含量影响最大。SS受降雨历时影响较大, 溶解态COD受平均雨强影响较大, 颗粒态COD受最大雨强影响较大。不同降雨强度下, SS、溶解态COD及颗粒态COD的出流规律不同, 降雨强度对径流初期效应的影响显著。

英文摘要:

Wuhu Railway Station was selected to be a long-term monitoring site, and 7 rainfall-runoff events were collected. Five different functional areas were selected to collect 1 typical rainfall-runoff event at the same time. Pollution characteristics, influential factors and discharge rules of SS and COD in road runoff were analyzed. The results show that the range of the average of SS and COD in 7 rainfall-runoff events are 198-1 529 mg/L and 66-367 mg/L. Pollution of SS and COD is relatively serious. The order of SS in different functional areas is as follows: industrial district>residential district>commercial district>transportation district>cultural district. The order of total COD is as follows: industrial district>transportation district>residential district>commercial district>cultural district. The order of solution-state COD is as follows: industrial district>transportation district>commercial district>cultural district>residential district. The order of granular-state COD is as follows: industrial district>residential district>transportation district>cultural district>commercial district. Industrial activities have the greatest impact on the contents of SS and COD in road runoff. Duration of rainfall has a greater impact on SS, average rainfall intensity has a greater impact on solution-state COD, maximum rainfall intensity has a greater impact on granular-state COD. The discharge characteristics of SS and COD are various in different rainfall intensities. First flush on runoff is significantly affected by the rainfall intensity.

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