**بسمه تعالی**

**فرم چکیده سخنرانی ژورنال کلاب دانشجویان دکترا**

**دانشکده بهداشت – گروه مهندسی بهداشت محیط**

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| **نام و نام خانوادگی دانشجو :** سمیرا یوسف زاده **شماره دانشجویی:** 9221150001**استاد راهنمای آموزشی:** جناب آقای دکتر رامین نبی زاده **عکس دانشجو:****تاریخ :** چهارشنبه 4/12/95 **ساعت:** 13 |
| **عنوان مقاله :****Chemical disinfection of combined sewer over flow waters using performic acid or peracetic acids** |
| **چکیده : 250لغت**This research investigated the possibility of applying performic acid (PFA) and peracetic acid (PAA) for disinfection of combined sewer over flow (CSO) in existing CSO management infrastructures. The disinfection power of PFA and PAA towards Escherichia coli (E. coli) and Enterococcus was studied in batch-scale and pre-field experiments. In the batch-scale experiment, 2.5 mg L−1 PAA removed approximately 4 log unit of E. coli and Enterococcus from CSO with a 360 min contact time. The removal of E. coli and Enterococcus from CSO was always around or above 3 log units using 2–4 mg L−1 PFA; with a 20 min contact time in both batch-scale and pre-field experiments. There was no toxicological effect measured by Vibrio fischeri when CSO was disinfected with PFA; a slight toxic effect was observed on CSO disinfected with PAA. When the design for PFA based disinfection was applied to CSO collected from an authentic event, the disinfection efficiencies were confirmed and degradation rates were slightly higher than predicted in simulated CSO. |