

## **Current advances in anaerobic digestion of highly concentrated dye effluent**

### **Abstract**

Industry such as, textile, leather, olive mill, pulp and paper, petroleum refinery and palm oil mill generates colored effluent that needs proper treatment, and if possible, it can be reused as a process water. Anaerobic digestion is inexpensive treatment for highly concentrated dyeing effluent. However, the presence of highly concentrated components such as dye and salt in dyeing effluent could inhibit the process. To overcome this, the effluent needs to be mixed with other carbohydrate-rich effluent to foster the methanogenesis. Nevertheless, the fully organic removal and decolorisation cannot be achieved. This chapter reviews the potential of coagulation/flocculation as a post treatment. Recent innovations in coagulants/flocculants material have been discussed.