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Study on treating of NH_3–N wastewater by membrane technology in a pilot plant

Yanbin Yun[a,b,*], Xinxin Zhang[a], Yili Wang[a]

[a]*School of Environmental Science and Engineering, Beijing Forestry University, Beijing, 100083, China*
[b]*UNESCO Center of membrane science and technology, UNSW, Sydney, 2055, Australia*
Tel. +8613810855917; email: y.yanbin@unsw.edu.au

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ABSTRACT

Reverse osmosis (RO) and activated zeolite and three types of tertiary treatment pilot systems were evaluated to treat the effluents of secondary sedimentation tank of spandex waste water. For RO system, when NH_3–N concentration of RO influent was less than 28 mg/l, NH_3–N concentration of RO effluent was below 1 mg/l; when NH_3–N concentration was 62 mg/l, the NH_3–N removal rate of RO system was 90%. For activated zeolite, the lower NH_3–N concentration of the feed, the lower NH_3–N removal rate. Compared to UF/RO system and UF/RO/NH_3–N remover system, the multimedia filter/UF/RO/NH_3–N remover combined system was the most suitable to treat the spandex secondary effluent.

Keywords: Multimedia filter; UF; RO; NH_3–N remover; Spandex waste water; NH_3–N

*Corresponding author.

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