Drink. Water Eng. Sci. Discuss., 6, C33–C36, 2013 www.drink-water-eng-sci-discuss.net/6/C33/2013/

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Interactive Comment

Interactive comment on "Removal and transformation of pharmaceuticals in wastewater treatment plants and constructed wetlands" by E. Lee et al.

E. Lee

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The authors would like to thank you for referee's constructive comments concerning our study entitled "Removal and Transformation of Pharmaceuticals in Wastewater Treatment Plants and Constructed Wetlands". I have studied your comments carefully and made major correction which I hope meet with your approval. Here I answer your questions or comments in details in the following texts. Detailed answer to review:

Firstly, the visibility of Figure 1 and 2 has been corrected and the modified files are attached. And, as shown in Section 3.3, it was difficult to find a relationship between transformation and electron density in other metabolites. The reason for this low re-

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lationship is thought that there might be some other different preferred transformation pathways depending on the intrinsic property of chemicals rather than electron density derived transformation. However, still little is known about the other transformation pathways so far. And further study would be necessary in order to fully understand transformation pathways of micropollutants.

Interactive comment on Drink. Water Eng. Sci. Discuss., 6, 97, 2013.

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4000 (a) Ibuprofen IBU-10H IBU-2OH 3000 Concentration (ng/L) IBU-CA 2000 1000 Influent Primary clarifier Secondary clarifier (b) 4000 Concentration (ng/L) 3000 Ibuprofen 2000 ІВÚ-1ОН IBU-2OH IBU-CA 1000 Influent Clarifier I Primary clarifier Secondary clarifier II Effluent 20000 15000 Concentration (ng/L) 10000 5000 Ibuprofen IBU-1OH IBU-2OH IBU-CA WWTP Influent Acorus wetland Wetland effluent

Fig. 1.

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16000 Carbamazepine 14000 ZZZZZZZ CBZ-EP 12000 CBZ-2OH Concentration (ng/L) 10000 CBZ-3OH CBZ-10OH 8000 4000 2000 Influent Primary clarifier Secondary clarifier Effluent Carbamazepine 14000 CBZ-EP CBZ-2OH 12000 CBZ-3OH ■ CBZ-10OH 10000 2000 1000 Induent darifier I Primary clarifier I Secondary clarifier I Effluent (c) □ CBZ 250 EBZ-2OH Concentration (ng/L) CBZ-3OH 200 CBZ-10OH 150 100 50 vettand Typha wetland effluent Wetland effluent WWTP effluent Acorus wetland

Fig. 2.

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