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Drinking Water Engineering and Science Discussions

Interactive comment on "Prediction of RO/NF membrane rejections of PhACs and organiccompounds: a statistical analysis" by V. Yangali-Quintanilla et al.

A. Bruchet (Referee)

Auguste.BRUCHET@suez-env.com

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This is a very carefully written paper which uses sophisticated statistical analysis to study the parameters that influence rejection by nanofiltration and reverse osmosis membranes for a set of model compounds. Although the description of statistical analysis methods will be hard to follow for unfamiliar readers, the conclusions, in particular the fact that molecular weight is not a good predictor, are significant. During principal component analysis the authors find a rather high level of variance on the first three axes, a quite convincing result. Therefore this paper deserves to be published without any modification.

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The only question I have is the following:

In 3.1, neutral compounds have been defined as having a pKa greater than 6. However filtration experiments were carried out at pH 8. At pH 8 a compound with a pKa of 6.1 would be in fact totally dissociated. This does not seem to be the case for any of the compounds studied, however the authors could introduce a warning for this case or extend their definition of neutral to a pKa of 7.

Auguste Bruchet

Suez Environnement - 1, rue d Astorg 75008 Paris

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