

Interactive comment on “Natural manganese deposits as catalyst for decomposing hydrogen peroxide” by A. H. Knol et al.

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Received and published: 16 February 2015

This manuscript provides valuable insights into the roles of natural manganese deposits as a catalyst to decompose the excessive hydrogen peroxide after AOPs. However, the presentation of the results needs to be streamlined and the discussion needs bit more clarification and justification. I have following specific comments:

Abstract: 1. Please use capital letters only for abbreviations and 1st letter of each sentence.

Introduction: 1. Does global warming strongly contribute to increases of organic micropollutants in surface water?

2. A thorough literature review on removal of organic micropollutants by AOPs and

C8

a role of natural manganese as catalytic scavengers of hydrogen peroxide has to be additionally included in the introduction section.

Materials and methods: 1. Please provide more detailed information on manganese coated filter materials, such as effective surface area (m²/g), which is a key factor affecting the decomposing rates of the excessive hydrogen peroxide.

Results and discussion: 1. Did the authors conduct any experiments to investigate effects of temperature and pH on the decomposition of hydrogen peroxide by GAC and manganese coated filter materials? It is expected that these parameters also provide an strong influence on the decomposition of hydrogen peroxide.

2. I would recommend the authors to divide the section 3.2 (Manganese coated filter material) into three subsections according to the major types of factors influencing the decomposition of hydrogen peroxide by manganese coated filter materials to make it easier for readers.

3. The results on the role of manganese coated filter materials as a catalytic scavenger of hydrogen peroxide are insufficiently discussed and poorly compared with the literature available on the topic.

Interactive comment on Drink. Water Eng. Sci. Discuss., 8, 1, 2015.