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Interactive Comment

Interactive comment on "UV/PAR radiations and DOM properties in surface coastal waters of the Canadian shelf of the Beaufort Sea during summer 2009" by J. Para et al.

J. Para et al.

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Received and published: 15 February 2013

Reply to the reviewers' comments Para et al.

Reply to PK Kowalczuk comments Comment # 1: "Your protein component C3 is rather authochtonous than allochtonous. C3 does not correlate with salinity as shown on Fig10. Please correct the explanation in Table 3". Reply: We agree, this is now in Table 3 of the revised MS.

Comment # 2: "Section 3.2.2 Authors have written that: "The Ex/Em maxima of component 1 (C1) are close to the marine humic-like (M peak) proposed by Coble (1996) and has been reported to be a ubiquitous component derived from the microbial degra-C8273

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dation of phytoplankton by-products (Nagata, 2000; Stedmon and Markager, 2005; Zhang et al., 2009) and from specific Arctic terrestrial sources at low salinity (Walker et al., 2009). "The terrestrial source of component similar to your component C1 was found not only in the Arctic but also is variety of places: in coastal and estuarine water in Japan (Yamashita et al., 2008), at the coast of the south-eastern USA (Kowalczuk et al., 2009) in Liverpool Bay (Yamashita et al., 2011) Hudson Bay (Guegen et al., 2011). Reply: We agree, this information is now given line (page 16, lines 387-390) of the revised MS "Indeed, component C1 has been reported in Liverpool Bay (Yamashita et al., 2011), and in Hudson Bay (Guéguen et al., 2011)."

The following references were added in the reference list in the revised MS: Yamashita, Y., Jaffé, R., Maie, N., and Tanoue, E. Limnol. Oceanogr., 53, 1900–1908, 2008. Yamashita, Y., Panton, A., Mahaffey, C., and Jaffé, R. Ocean Dyn., 61, DOI 10.1007/s10236-010-0365-4, 2011 Kowalczuk, P., Cooper, W.J., Durako, M.J., Young, H., Kahn, A.E. Mar. Chem., 113, 182–196, 2009. Guéguen, C., Granskog, M.A., McCullough G., and Barber D. G., J. Mar. Syst., 423-433, 2011.

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Please also note the supplement to this comment: http://www.biogeosciences-discuss.net/9/C8273/2013/bgd-9-C8273-2013-supplement.pdf

Interactive comment on Biogeosciences Discuss., 9, 15567, 2012.

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