

Reviewer A

**1. It is better to put the full names of the investigated surfactants in “Keywords” instead of abbreviations SDS and SDBS.**

Answer:

(page 1) In line with the Reviewer's request full names of surfactants were included in “Keywords” instead of their abbreviations.

*Keywords:* Plasma treatment, Sodium lauryl sulfate, Sodium dodecylbenzenesulfonate, Homogenous, Catalysis

**2. The full names of the surfactants should be written in accordance with IUPAC nomenclature in the whole manuscript**

Answer:

Full names of surfactants were changed throughout the text as suggested by the reviewer.

(page 1) “(sodium lauryl sulfate - SDS and sodium dodecylbenzenesulfonate - SDBS)”

(page 2) “Sodium dodecylbenzenesulfonate (SDBS) and sodium lauryl sulfate (SDS) are anionic detergents (surfactants) that are used worldwide. Linear alkylbenzenesulfonates (LAS)...”

(page 3) “The surfactants, sodium lauryl sulfate and...”

(page 6) “catalysts have an influence on the degradation of sodium dodecylbenzenesulfonate.”

(page 7) “In the case of sodium lauryl sulfate catalysts have no...”

(page 10) “In the present paper, the efficiency of degradation of two anionic surfactants, sodium lauryl sulfate and sodium dodecylbenzenesulfonate...”

**3. Please, delete Fig.1 and Fig. 2 (molecular structures) since the investigated compounds are very well known and commercially available.**

Answer:

(page 3) Fig. 1 and (page 4) Fig. 2 have been deleted by Reviewers request. Sentence ‘‘ Molecular structure and general characteristics of SDS and SDBS are summarized in Fig. 1 and Fig 2. Respectively’’ is now also deleted. All other Fig. were renamed throughout the text: Fig. 3 is now Fig. 1, Fig 4. is now Fig. 2., Fig. 5. is Fig. 3., Fig. 6. is Fig. 4., and Fig. 7 is now Fig. 5.

**4. The reference for surfactants determination is listed in ‘‘References’’ but not given in the text (Page 4, Section ‘‘Methods of analysis’’).**

Answer:

(page 4) Reference for surfactants determination has been included in the text according to the Reviewers request in the sentence: ‘‘...measuring the methylene blue index (MBAS).<sup>20</sup>’’.

**5. Page 5: Please specify  $\lambda_{max}$**

Answer:

(page 5) Value of  $\lambda_{max}$  was included in the sentence: ‘‘Efficiency of degradation was monitored with MBAS test ( $\lambda_{max} = 650$  nm) for both...’’.

**6. Considering the toxicity measurement error is given, specify the number of replications of toxicological test in the brackets in caption for Fig. 7. Also, this information should be given in the ‘‘Experimental’’ part of the manuscript.**

Answer:

(page 10) Fig. 7 (now after correction Fig. 5) caption changed to: ‘‘ Fig. 5. Toxicity of surfactant solutions before and after the plasma treatment (Number of replications: 3): a) SDBS, b) SDS.’’, in order to include the number of replications.

(page 4) Also the number of replications was included in the sentence: ‘‘ For the toxicity screening test, the brine shrimp *Artemia salina* was used according to Vanhaecke and Persoone, and experiment was repeated three times.’’ As requested by the reviewer.

**7. Please, check and correct the names of all mentioned compounds with IUPAC nomenclature.**

Answer:

Names of all compounds mentioned were checked and corrected.

(page 1) “ Effects of catalysts – hydrogen peroxide and...”

(page 11) “ Раствори два анјонска сурфактанта (натријум-лаурилсулфат - СДС и натријум-додецилбензенсулфонат - СДБС) третирали...”

(page 11) “ Испитан је и ефекат катализатора на ефикасност деградације – водоник-пероксида...”

(page 11) “ Катализатори утичу на деградацију натријум-додецилбензенсулфоната, док на деградацију натријум-лаурилсулфата немају утицај.”

We thank the reviewer for suggested changes.