

Dear Professor Koji Suzuki,

Thank you very much for your email, comments and the assistance during the whole reviewing process. We would like to ensure that the editorial corrections and the suggestion by Professor Douglas Campbell provided in your last report were introduced to the present version of the manuscript. We added also some acknowledgements in the *Acknowledgements* section. We hope that the final paper is satisfactory and fully ready to be published. [All modifications in the manuscript are marked in blue.](#)

Kind regards,
Agata Cieszyńska
(on behalf of all Authors)

- Comment from Professor Douglas Campbell:

The authors addressed my concerns. They still include one line:
L526–52: Carotenoids have a dual role in the cell: to maintain a high capacity for photosynthetic light absorption and to provide protection against photooxidation (Siefermann-Harms, 1987; Kana and Glibert, 1988; Jodłowska and Latała, 2010)

and I do not think it is true for cyanobacteria. The cited references do not show that carotenoids act as photosynthetic antenna, rather they show that carotenoid content varies with light acclimation. In many cyanobacteria some carotenoid content is not even in the thylakoid membrane, and I do not know any evidence that shows coupling of carotenoids to photosynthetic light capture in cyanos.

Reply:

The Authors decided to delete the misleading part of the sentence (presently L526-528: Furthermore, carotenoids play an important role in the cells as they provide protection against photooxidation (Siefermann-Harms, 1987; Kana and Glibert, 1988; Jodłowska and Latała, 2010).

- Editorial comments:

L13: The present study examined ...
L14: Remove “was conducted”.
L19 and L23: among strains.

Reply:

The corrections introduced.