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Thesis Changes Log

Name of Candidate: Aleksandr Kurilovich
PhD Program: Materials Science and Engineering
Title of Thesis: Oxygen Reduction Reaction on Metal Oxides/Carbon Composite Materials
Supervisor: Prof. Keith Stevenson

The thesis document includes the following changes in answer to the external review process.

Dear Jury Members,

I am grateful for your helpful suggestions and comments. Here I provide answers and thesis corrections.

In respond to Prof. Charles McCrory comments

- I would like to thank you for the grammatical/proofreading edits for Chapters 1 and 2. The appropriate corrections were introduced to the thesis.

In respond to Prof. Tanja Kallio comments

- The misprints were corrected throughout the thesis.
- The references to the formulas, figures, and tables were corrected in Chapter 3
- The misprint in reaction (2.11) was corrected:

$$2O_2^- + H_2O \rightarrow O_2 + HO_2^- + OH^-$$

- The correction was introduced in accordance with style used in Table 3.3 "Atoms denoted by plain text and connected by dashes indicate the bond or angle, for which the value is shown":
  Mn-Oo => Mn-O_O
- The clarification to the chapter 2.1.1 was introduced to connect the discussed properties with components of low temperature fuel cells.
- The formula (3.19) was not corrected due to the following reason: "The OH_{ads} was added to the step **Ошибка! Источник ссылки не найден.** to account for stabilizing interactions between O_{ads} and OH_{ads} on two neighboring Mn active sites, which facilitate the OH^- detachment and decrease the activation barrier (i.e. adsorbate-mediated mechanism)." The corresponding clarification was added to the thesis.