## **Accepted Manuscript**

Control structure design and robust model predictive control for controlling a proton exchange membrane fuel cell

Cleaner Production

Narissara Chatrattanawet, Thanaphorn Hakhen, Soorathep Kheawhom, Amornchai Arpornwichanop

PII: S0959-6526(17)30237-8

DOI: 10.1016/j.jclepro.2017.02.033

Reference: JCLP 8959

To appear in: Journal of Cleaner Production

Received Date: 09 October 2016

Revised Date: 28 December 2016

Accepted Date: 04 February 2017

Please cite this article as: Narissara Chatrattanawet, Thanaphorn Hakhen, Soorathep Kheawhom, Amornchai Arpornwichanop, Control structure design and robust model predictive control for controlling a proton exchange membrane fuel cell, *Journal of Cleaner Production* (2017), doi: 10.1016/j.jclepro.2017.02.033

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## ACCEPTED MANUSCRIPT

### Highlights

- A step by step method for control structure design of PEMFC is presented.
- Optimal operating conditions and control design are identified from PEMFC behavior.
- Controlled and manipulated variables are specified from the control structure design.
- The off-line robust MPC algorithm is synthesized and used for PEMFC control.

#### Download English Version:

# https://daneshyari.com/en/article/5480252

Download Persian Version:

https://daneshyari.com/article/5480252

<u>Daneshyari.com</u>