

## Supporting Information

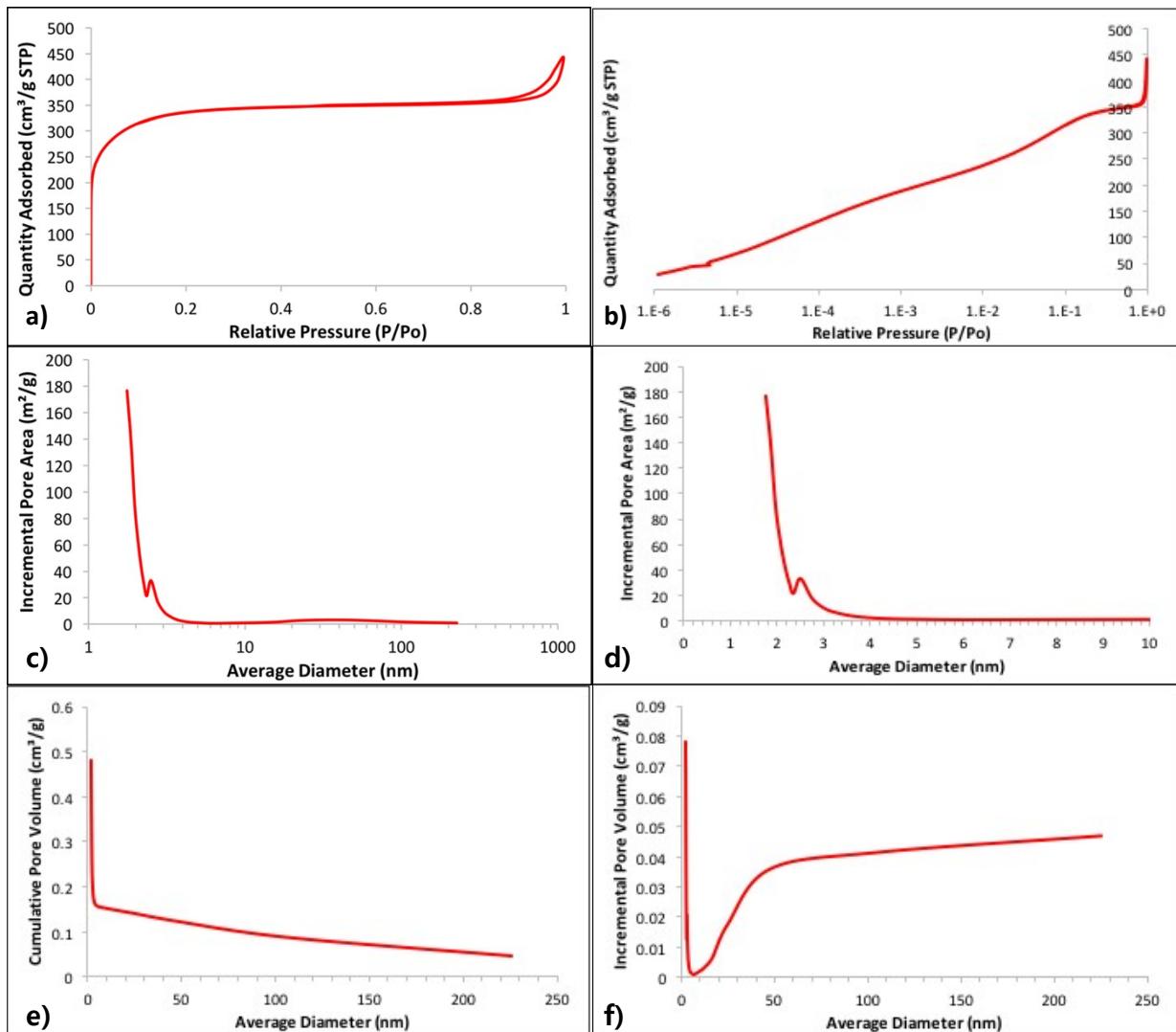
### Is the rapid initial performance loss of Fe/N/C non precious metal catalysts due to micropore flooding?

Ja-Yeon Choi,<sup>a</sup> Lijun Yang,<sup>b</sup> Takeaki Kishimoto,<sup>c</sup> Xiaogang Fu,<sup>a</sup> Siyu Ye,<sup>b</sup> Zhongwei Chen<sup>a\*</sup> and Dustin Banham<sup>b\*</sup>

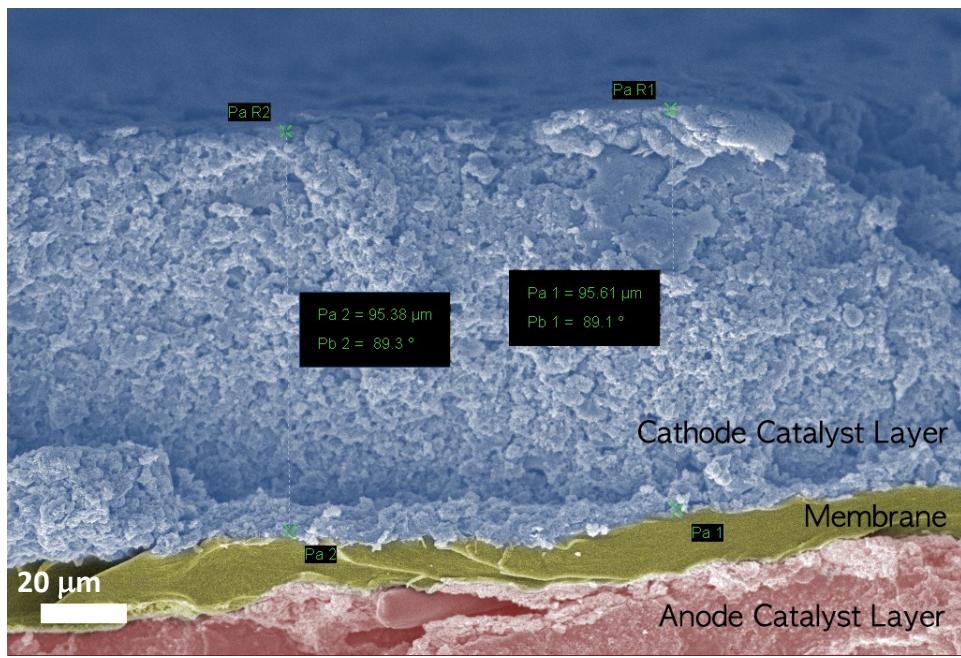
<sup>a</sup> Department of Chemical Engineering, University of Waterloo, 200 University Ave. W., Waterloo, ON, Canada, N2L 3G1. Email: zhwchen@uwaterloo.ca

<sup>b</sup> Ballard Power Systems, 9000 Glenlyon Parkway, Burnaby, BC, Canada, V5J 5J8. Email: dustin.banham@ballard.com

<sup>c</sup> Nisshinbo Holdings Inc., Business Development Dept., 1-2-3 Onodai, Midori-ku, Chiba, Japan, 267-0056.



**Figure S1:** (a,b) N<sub>2</sub> sorption isotherm, (c,d) pore size distributions, (e) cumulative pore volume and (f) pore volume distribution for Fe-N-C-Phen-PANI catalyst



**Figure S2:** Cross-sectional SEM image of MEA and the thickness measurement of the cathode catalyst layer with Fe-N-C-Phen-PANI catalyst.

**Table S1:** Elemental composition of the Fe-N-C-Phen-PANI catalyst obtained by EDX

	C (Wt. %)	N (Wt. %)	O (Wt. %)	S (Wt. %)	Fe (Wt. %)
Fe-N-C-Phen-PANI	89.41	4.45	4.31	0.12	1.71