

## Accepted Manuscript

Title: Platinum/polypyrrole-carbon electrocatalysts for direct borohydride-peroxide fuel cells

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PII: S0926-3373(18)30591-5  
DOI: <https://doi.org/10.1016/j.apcatb.2018.06.057>  
Reference: APCATB 16805

To appear in: *Applied Catalysis B: Environmental*

Received date: 21-2-2018  
Revised date: 15-6-2018  
Accepted date: 22-6-2018

Please cite this article as: Oliveira RCP, Milikić J, Daş E, Yurtcan AB, Santos DMF, Šljukić B, Platinum/polypyrrole-carbon electrocatalysts for direct borohydride-peroxide fuel cells, *Applied Catalysis B: Environmental* (2018), <https://doi.org/10.1016/j.apcatb.2018.06.057>

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# Platinum/polypyrrole-carbon electrocatalysts for direct borohydride-peroxide fuel cells

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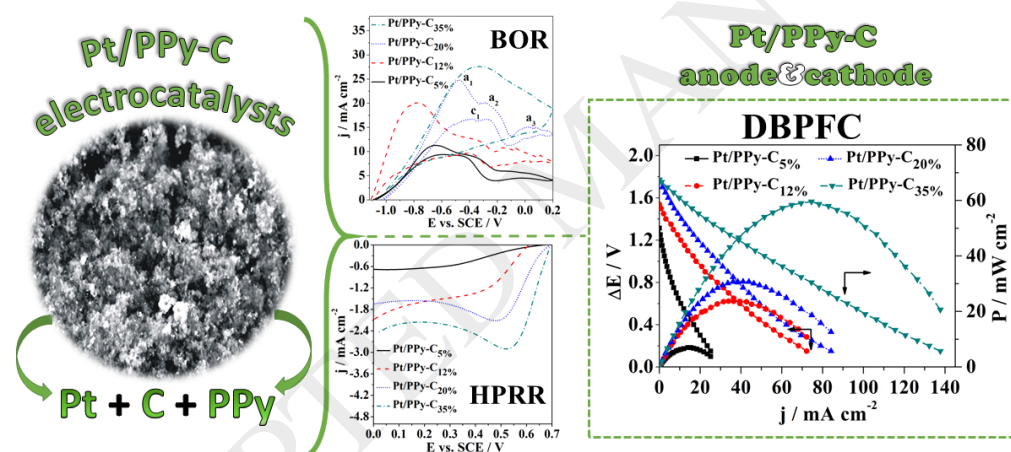
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## Graphical abstract



## Highlights

- Pt/PPy-C electrocatalysts with 5, 12, 20 and 35 wt.% of carbon were synthesized.
- Pt/PPy-C were characterized by FTIR, Raman, XPS, SEM/EDS, TEM and ICP-MS.
- Pt/PPy-C were tested as electrocatalysts for  $\text{BH}_4^-$  oxidation and  $\text{H}_2\text{O}_2$  reduction.
- Pt/PPy-C<sub>35%</sub> showed the best catalytic activity for both BOR and HPRR.
- DBPFCs using Pt/PPy-C as anodes and/or as cathodes were assembled and tested.

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