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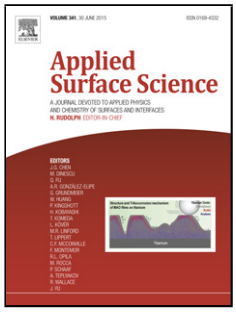

Title: Flexible supercapacitor based on electrochemically synthesized pyrrole formyl pyrrole copolymer coated on carbon microfibers

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Flexible supercapacitor based on electrochemically synthesized pyrrole formyl pyrrole copolymer coated on carbon microfibers

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Graphical abstract

Highlights

- A Flexible supercapacitor prepared by carbon microfibers coated with P(Py-co-FPy).
- The variation of capacitance with different mole ratio of monomers is investigated.
- The capacitance measured by different electrochemical methods.
- This flexible supercapacitor and can be discharged in higher currents for longer time.

Abstract

The main objective of this work is to prepare a flexible supercapacitor using electrochemically synthesized pyrrole formyl pyrrole copolymer P(Py-co-FPy) coated on the carbon microfibers. Due to difficulties of working with carbon microfibers, glassy carbon was used to find out optimized conditions by varying mole ratio of pyrrole and formyl pyrrole monomers on the