



Electrochemical synthesis of polypyrrole nanowires on carbon nanotube-coated carbon fibers.

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Streszczenie

Carbon fibers and carbon nanotube-coated carbon fibers have been used as supports for the electrochemical growth of polypyrrole nanowires using a template-free electrochemical method. The final nanocomposites are characterized by SEM, micro-Raman spectroscopy, and their conductivity is assessed. The role of the electrolyte salts and synthetic conditions (applied potential) on the morphology is investigated. It is demonstrated that this method can be successfully implemented to design original carbon-polypyrrole nanocomposites although their electrical conductivity is below the one of unsized carbon fibers but above the one of the pristine-sized ones.

Adres publiczny

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Strona internetowa wydawcy

<http://link.springer.com>