

## Pengaruh aditif pada propertis karbon/polimer komposit pelat bipolar suatu sel tunam

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### Abstrak

Bipolar plate in a polymer membrane fuel cell (PMCF) plays important role either in improving cell performance or reducing production cost. This work studied the effect of additives and carbon compositions on properties of polymer / carbon composite as bipolar plate material. The effects of two additives, i.e.: PVDF (polyvinylidene fluoride) and EDPM (etilena -propilena-diena terpolimer), each in four different compositions of polymer / carbon composites was tested. The results show that the addition of EPDM tends to give higher conductivity of composite but lower tensile and flexural strength, compared to PVDF, further, the increase of carbon mass fraction in the composites shows the same effect, that is higher conductivity but lower tensile and flexural strength.