

## MAPLE preparation and characterization of mixed arylenevinylene based oligomers:C60 layers

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R sum  en anglais This paper presents some studies about the preparation by matrix-assisted pulsed laser evaporation (MAPLE) of mixed layers based on two arylenevinylene oligomers, 1,4-bis [4-(N,N'-diphenylamino)phenylvinyl] benzene (L78) and 3,3'-bis(N-hexylcarbazole)vinylbenzene (L13) as donor and buckminsterfullerene (C60) as acceptor, blended in three different weight ratios: 1:1, 1:2 and 1:3. The optical, morphological, structural and electrical properties of these mixed layers have been investigated emphasizing the effect of the layer composition and of the significant degree of disorder. I-V characteristics have revealed typically solar cell behaviour for the heterostructures prepared with mixed layers containing L78 (L13) and fullerene blended in a weight ratio of 1:2. The solar cell structure glass/ITO/L13:C60/Al has shown the best parameters.

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