

**A novel class of fullerene materials:  
*double-cable* polymers**

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The covalent grafting of fullerene moieties to conjugated backbones is promising for the preparation of intrinsically bipolar polymeric materials (*double-cable* polymers) alternative to conjugated polymer/fullerene composites or oligomeric donor-fullerene dyads. *Double-cable* polymers can be considered as "polydyads" in which phase separation, *e.g.* clustering of fullerenes, is minimized. As such, they may offer a way towards the control of both morphology and electronic properties in thin layer devices.

The recent developments on the synthesis, the characterisation and the application of this novel class of fullerene functional materials will be reviewed.