Name of the Technology: **Process for Synthesis of Fullerene Acceptors for Organic Solar Cells**

Summary:
The existing [6,6]-phenyl-C_{61}-butyric acid methyl ester (PC61BM) and new acceptor molecule [6,6]-phenyl-C_{61}-butyric acid pentyl ester (PC61BP) materials prepared via cost effective route. More particularly, the present invention relates to a process for the preparation of fullerene acceptors under aerobic conditions (in air) showing performance equivalent to state of art. More importantly this process causes the low cost synthesis of PC61BM and PC61BP in good yield without involving harmful and costly catalysts or chemicals cutting down the production cost.

Applications: In excitonic solar cells (both organic and perovskite solar cells)

Advantages: Cost effective methodology to synthesize materials on much cheaper price

Choose the Readiness level of the Technology:

Idea	Concept Definition	Proof of Concept	Prototype	Lab Validation	Technology Development	Technology Demonstration	Technology Integrated	Market Launch

Related Patents:

Patent No: 458DEL2015, Country: India, USA, Publication Date: 18/02/2015

Grant Date: Awaited, **Year of Introduction:** 2015

Broad Area/Category: Chemical process for material development

User Industries: Chemical companies like American Dye Source, Sigma-Aldrich, 1-Material, Ossila