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ABSTRACT



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POLYMERS, THEIR PREPARATION AND USES

An organic polymer having a plurality of regions along the length of the
5 polymer backbone and comprising two or more of the following a first region for
transporting negative charge carriers and having a first bandgap defined by a
first LUMO level and a first HOMO level; and a second region for transporting
positive charge carriers and having a second bandgap defined by a second
LUMO level and a second HOMO level. And a third region for accepting and
10 combining positive and negative charge carriers to generate light and having a
third bandgap defined by a third LUMO level and a third HOMO level, wherein
each region comprises one or more monomers and the quantity and
arrangement of the monomers in the organic polymer is selected so that the
first, second and third bandgaps are distinct from one another in the polymer.

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No Figure