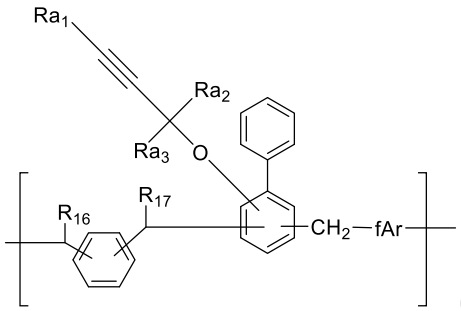
Claims

We claim:

1. A spin on high carbon polymer comprising a repeat unit of structure (XII), wherein fAr is a fused aromatic ring and Ra_1, Ra_2, Ra_3, R_{16} and R_{17} are each independently hydrogen or a C_1 to C_4 alkyl;

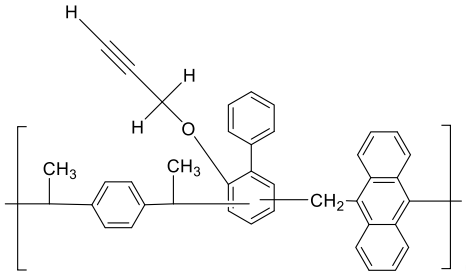


(XII).

2. The spin on high carbon polymer of claim 1, wherein fAr is a group comprising 2-8 fused aromatic rings.

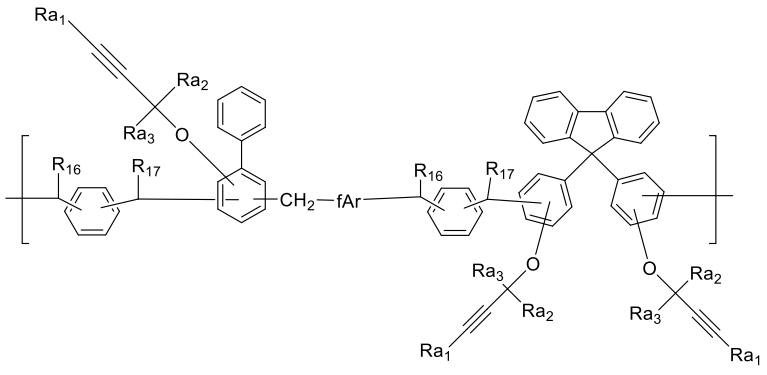
3. The spin on high carbon polymer of claim 1, wherein fAr is anthracene.

4. The spin on high carbon polymer of claim of claim 1, wherein said repeat unit has structure (XIIc):

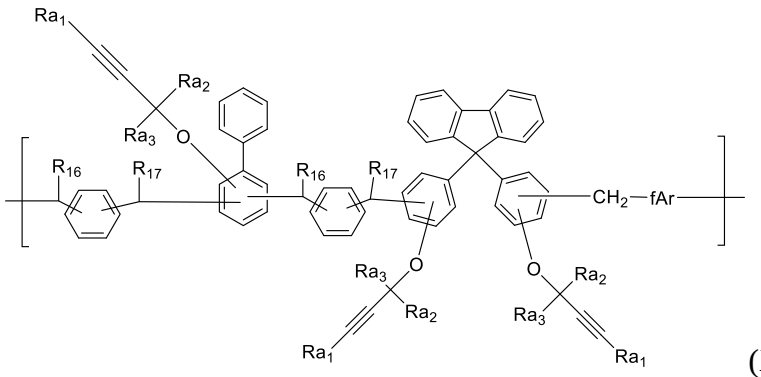


(XIIc).

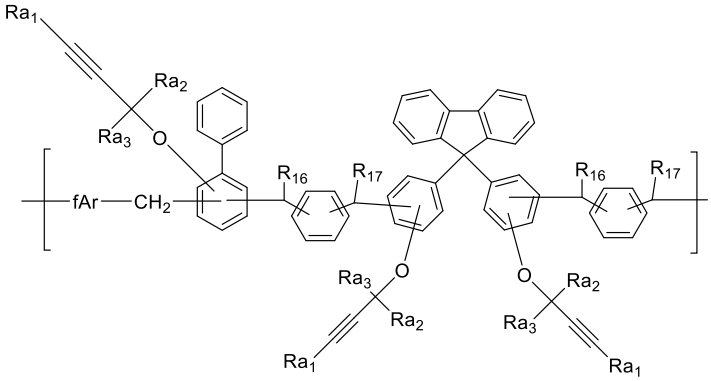
5. A spin on high carbon polymer comprising repeat units, selected from the group consisting of repeat units having structures (XIII), (XIIIa), (XIIIb), (XIIIc) and (XIIId), and mixtures thereof,



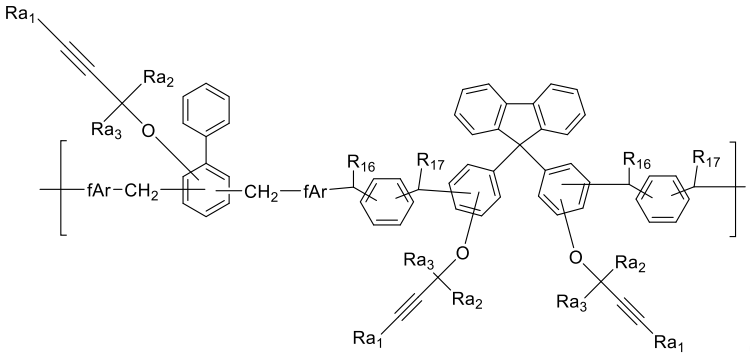
(XIII),



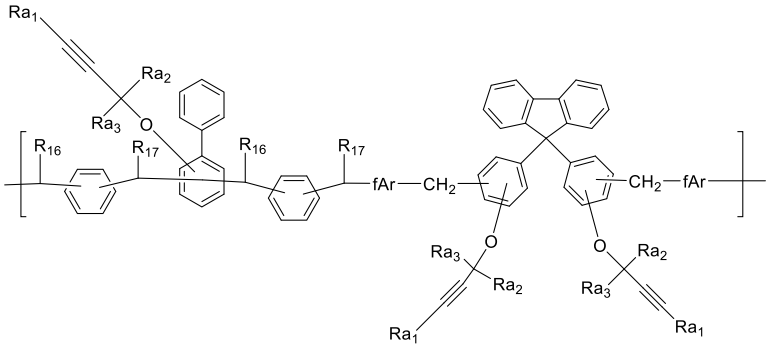
(XIIIa),



(XIIIb),



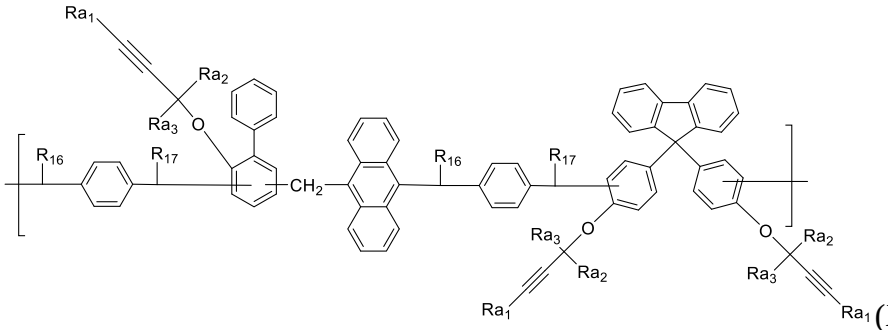
(XIIIc),



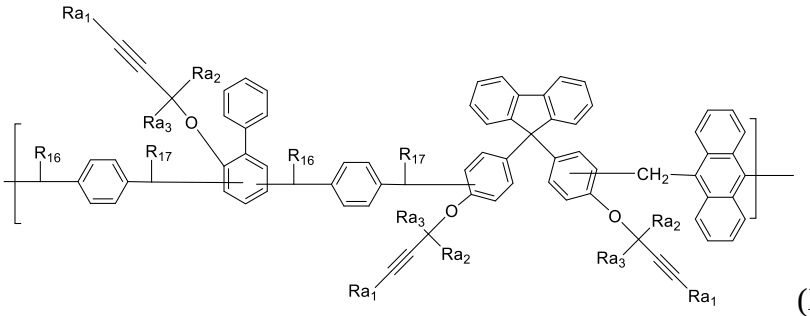
(XIIId),

wherein fAr is a fused aromatic ring and Ra_1, Ra_2, Ra_3, R_{16} and R_{17} are each independently selected from the group of hydrogen and a C_1 to C_4 alkyl.

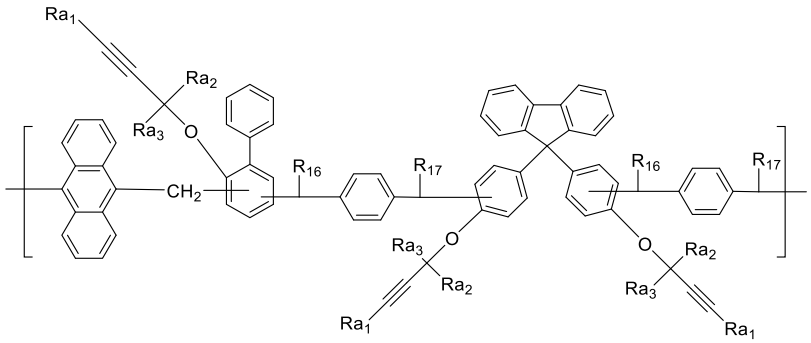
6. The spin on high carbon polymer of claim 5, wherein said spin on high carbon polymer comprising repeat units, selected from the group consisting of repeat units having structures (XIIIe), (XIIIf), (XIIIg), (XIIIh), and (XIIIi), and mixtures thereof,



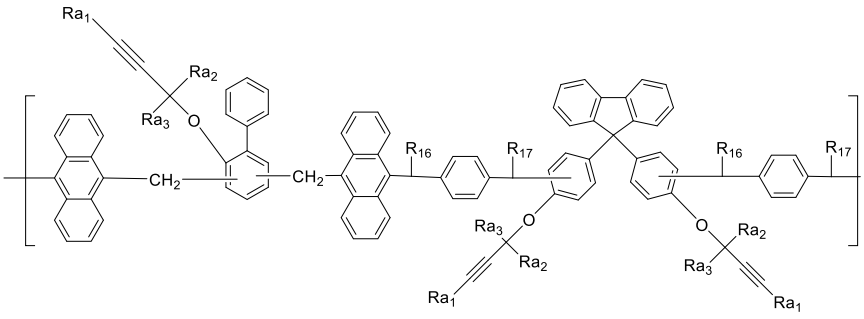
(XIIIe),



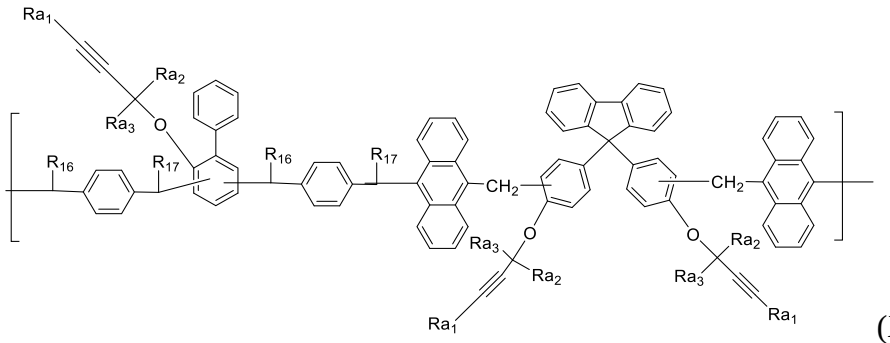
(XIIIf),



(XIIIg),



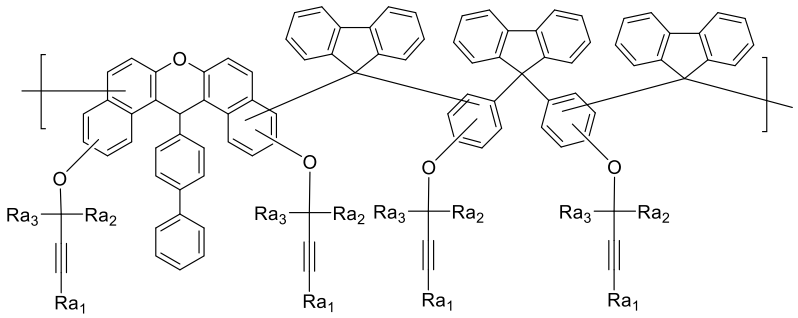
(XIIIh),



(XIIIi),

wherein fAr is a fused aromatic ring and Ra_1, Ra_2, Ra_3, R_{16} and R_{17} are each independently selected from the group of hydrogen and a C_1 to C_4 alkyl.

7. A spin on high carbon polymer is a spin on high carbon polymer comprising repeat units having structures (XIV),



(XIV).

wherein Ra1, Ra2 and Ra3 are each independently selected from the group of hydrogen and a C_1 to C_4 alkyl.

8. The spin on high carbon polymer of claim 7, wherein Ra_1, Ra_2 and Ra_3 are hydrogen.