

A method is described for loading an axial-radial flow vessel containing a bed of a particulate catalyst having a radial-flow portion and an axial-flow portion supported on and in fluid communication with the radial flow portion, by (i) placing a first catalyst material in the radial-flow portion and (ii) placing a second catalyst material in the axial-flow portion, wherein second catalyst material has a smaller particle size than the first catalyst material. The invention further provides the vessel loaded with first and second catalyst materials.