CLAIMS:

1. A heterogeneous catalyst comprising a support and gold, wherein: (i) said support comprises alumina, (ii) said catalyst comprises from 0.2 to 3 wt% of gold, 60 to 95 wt% silica and 0.1 to 15 wt% alumina, (iii) at least 95 wt% of the gold is in the outer 50% of catalyst volume, and (iv) particles of the catalyst have an average diameter from 300 microns to 20 mm; wherein weight percentages are based on weight of the catalyst.

2. A catalyst bed which comprises (a) a heterogeneous catalyst comprising a support and gold, wherein: (i) said support comprises alumina, (ii) said catalyst comprises from 0.2 to 3 wt% of gold, 60 to 95 wt% silica and 0.1 to 15 wt% alumina, (iii) at least 90 wt% of the gold is in the outer 60% of catalyst volume, and (iv) particles of the catalyst have an average diameter from 500 microns to 10 mm; wherein weight percentages are based on weight of the catalyst, and (b) a liquid phase comprising methacrolein, methanol and methyl methacrylate, and (c) a gaseous phase comprising oxygen.

3. A method for preparing methyl methacrylate from methacrolein and methanol; said method comprising contacting a mixture comprising methacrolein, methanol and oxygen with a catalyst bed comprising a heterogeneous catalyst comprising a support and gold, wherein: (i) said support comprises alumina, (ii) said catalyst comprises from 0.2 to 3 wt% of gold, 60 to 95 wt% silica and 0.1 to 15 wt% alumina, (iii) at least 90 wt% of the gold is in the outer 60% of catalyst volume, and (iv) particles of the catalyst particle have an average diameter from 500 microns to 10 mm; wherein weight percentages are based on weight of the catalyst.