CLAIMS:

1. A method for preparing methyl methacrylate from methacrolein and methanol; said method comprising contacting a mixture comprising methacrolein, methanol and oxygen with a heterogeneous catalyst comprising a support and gold, wherein said catalyst has an average diameter of at least 300 microns and at least 90 wt% of the gold is in the outer 50% of catalyst volume, and wherein average concentration of methacrolein is at least 15 wt%.

2. The method of claim 1 in which the catalyst has an average diameter from 400 microns to 10 mm.

3. The method of claim 2 in which the catalyst is contained in a catalyst bed.

4. The method of claim 3 in which the catalyst bed is at a temperature from 40 to 120 °C.

5. The method of claim 4 in which pH in the catalyst bed is from 4 to 10.

6. The method of claim 5 in which at least 90 wt% of the gold is in the outer 40% of catalyst volume.

7. The method of claim 1 in which the support is selected from the group consisting of γ-, δ-, or θ-alumina, silica, magnesia, titania, vanadia, ceria, lanthanum oxide and a combination thereof.

8. The method of claim 7 in which methanol and methacrolein are fed to a reactor containing the catalyst bed in a molar ratio from 1:1 to 10:1, respectively.

9. The method of claim 8 in which at least 95 wt% of the gold is in the outer 30% of catalyst volume.

10. The method of claim 1 wherein the average concentration of methacrolein is at least 17 wt%.

11. The method of claim 7 wherein the support is selected γ-, δ-, or θ-alumina.