

PC-704

Methyl Methacrylate (MMA) ~ PMMA

Reaction

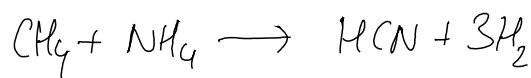
Acetone with HC (Hydrogen cyanide)

↳ Andrusow process



Air/CH₄/NH₃ = 5:1:1 platinum and rhodium. 1100°C - 1200°C

+) Degussa Process

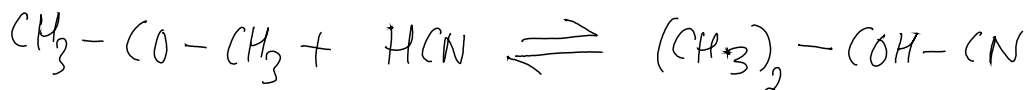


endothermic reaction

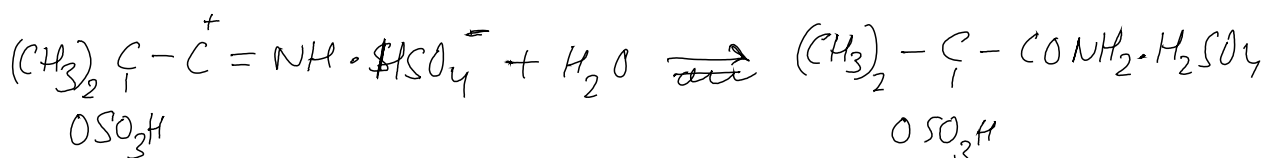
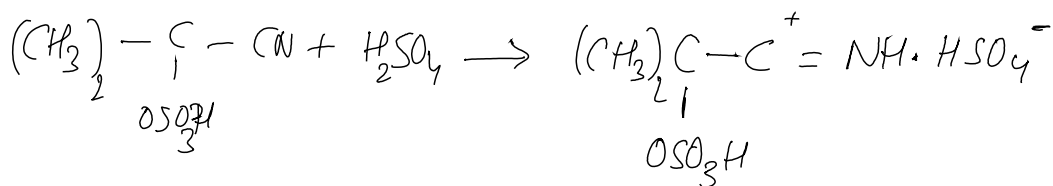
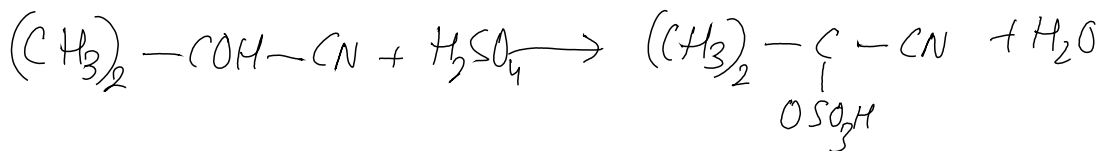
Platinum is catalyst

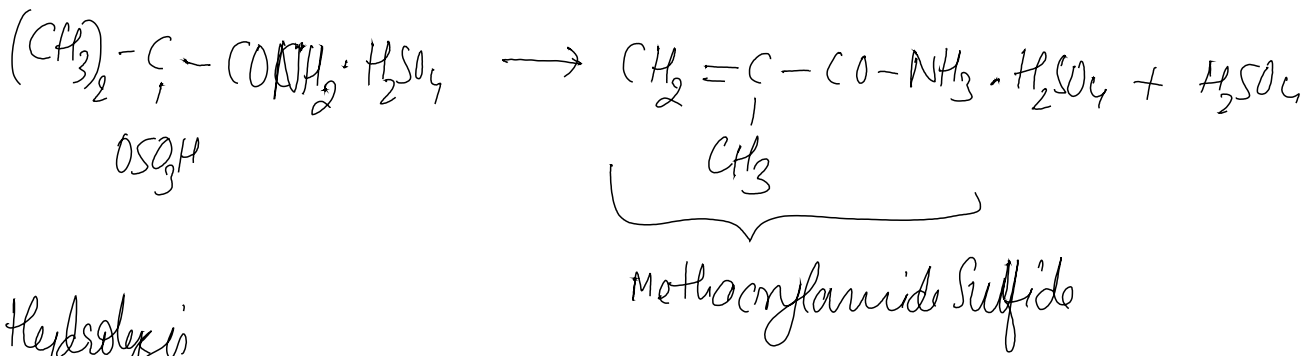
1200 - 1300°C

+ Acetone and HCN



+ Methacrylamide Sulfide





Hydrolysis



80°C - 110°C residence time 2-4 hrs Molecular

0.8 MPa at 100 - 150°C residence 1 hr

→ Liquid phase (inhibitors) pre polymerization (light)

dark bottles / away from heat' ↓ washing → inhibitor removal

MMA ~ depolymerization ~ 20°C
 ↳ Bulk polymerization sheets ~ clear, transparent

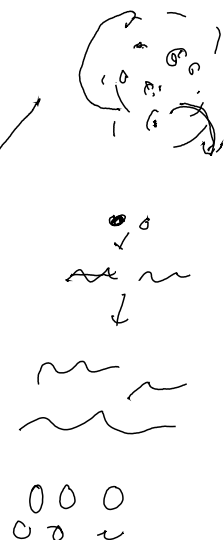
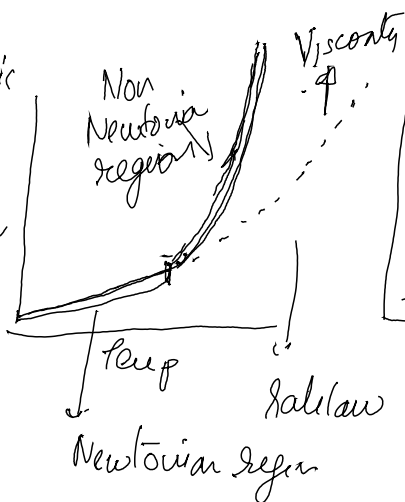
sharp rise in viscosity exothermic

Polymerize (30%-40%) ↓ Quench low

Sharp rise in conversion

insensitive to heat transfer

Core → Bulk Polymerization



Sol Emulsion Suspensions