

### Methyl Acrylate Polymerization using New Zr(IV), Fe(II), Co(II) Catalysts Bearing N,N,N-Chelate Ligand

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The homopolymerization of methyl Acrylate (MA) was investigated with Zirconium(IV), Iron(II), Cobalt(II) complexes bearing 2,6-bis(2-benzimidazolyl)pyridine (bbipy) and with methylaluminoxane (MAO) as an activator. bbipy is tridentate ligand as three nitrogen coordinate to metal center. In bulk polymerization of MA with bbipy metal complex with MAO, polymethacrylate (PMA) was formed successfully. When we tried bulk polymerization of MA with MAO not including any metal catalysts, we got little amount of PMA. However, this PMA had different properties from PMA that was polymerized with metal catalyst and MAO.