

## Abstract of the Disclosure

### METALLOCENE PREPARATION AND USE

Double bound metallocenes, i.e. metallocenes having a cyclopentadienyl-containing radical that is bound to a transition metal both by a pi bond and by a sigma carbon bond of a substituent of that same cyclopentadienyl-containing radical can be prepared by reducing metallocenes having a cyclopentadienyl-containing radical having at least one an unsaturated substituent. Also a process for producing polymers comprising contacting at least one olefinic monomer under suitable polymerization conditions with such double bound metallocenes.