

20 FEB 2003

Claims

1. A process for producing nitrous oxide comprising the step of reacting ammonia with nitric oxide and/or oxygen in the presence of a catalyst comprising a Group VIB metal oxide on a support comprising zirconia, to produce an effluent mixture comprising nitrous oxide, wherein the catalyst is produced by precipitation of said Group VIB metal oxide from solution onto said support to form a catalyst precursor and then calcining the catalyst precursor at a temperature of about 500°C. to about 850°C.
2. The process of claim 1 and including the further step of recovering the nitrous oxide from the effluent mixture.
3. The process of claim 1 wherein the Group VIB metal oxide of the catalyst is molybdenum oxide.
4. The process of claim 1 wherein said step of reacting ammonia with nitric oxide and/or oxygen in the presence of a catalyst is carried out at a temperature of 400° to 500°C.
5. The process of claim 1 wherein said catalyst further comprises iron oxide.



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