

## Cu nanoparticles Supported Catalysts for Selective Synthesis of Methanol from Syngas

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Effective conversion of gas to liquids (GTL) is the challenging research filed in 21st century to produce clean and efficient fuels from syngas. Conversion of syngas to methanol is very old topic in catalysis, but still there is much scope to develop a novel catalyst for the process. One of the major drawback in reported catalysts is heir stability for long time. Here we did an attempt to prepare Cu nanoparticles supported on different supports for selective synthesis of methanol. Catalysts were well characterised by BET surface area, XRD, TPR,TPD (NH<sub>3</sub>), TG/DTA, SEM and TEM techniques. The catalytic activity was studied for CO hydrogenation to methanol under fixed bed down flow reactor at moderate reaction conditions. From the results it is clear that Cu nano particles are well dispersed on the support and showed good activity and stability for methanol synthesis.