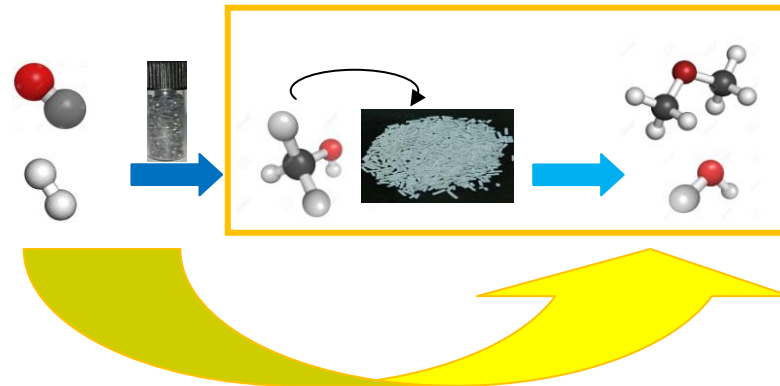


Production of Dimethyl ether from Methanol Dehydration

- ❖ Dimethyl ether can be synthesized from either one step Direct Syngas to DME or by Dehydration of Methanol
- ❖ Single step DME production is more favorable than conventionally applied two step process via Methanol intermediate. But, for transportation and onsite distributed production purposes Methanol Dehydration may be beneficial.
- ❖ Even though Methanol Dehydration has been commercially exploited, due to some limitations of commercial alumina based catalysts further improvements are being sought.



- ❖ DME is a versatile chemical and feedstock for a large variety of fuels, chemicals and petro-chemicals
- ❖ DME has been traditionally used as an aerosol propellant but in recent times, DME usage has been exploited for transportation fuels (high octane/cetane fuel), substituent to domestic cooking gas, and chemical intermediate etc.
- ❖ Dimethyl ether (DME) is also one of basis for the so called *Methanol Economy*