THE PROBLEM

Current Gas-to-Liquids Processes Are Much Too Costly

- Extremely inefficient and non-selective
- Require a huge economy of scale
- Requires massive capital investment ... $20 billion!

LONGSTANDING ISSUE AND CHALLENGE FOR MAJOR PETROCHEMICAL COMPANIES AND REFINERIES
THE SOLUTION

KPT Process Selectively and Economically Makes High Octane Gasoline from Natural Gas Liquids (NGL)

• Ethylene from ethane cracking is reacted with propane and butane to produce branched, high octane C5 to C12 gasoline

• Novel catalyst costs less than 1 cent per pound of product produced

• Projected capital cost for a plant producing 400 million pounds annually is $52 million giving an estimated payback of less than two years

OFFERS DISRUPTIVE SOLUTION TO LONGSTANDING INDUSTRY PROBLEM
THE MARKET

High Volumes, High Demand, High Octane ... Much Needed

- Almost 144 billion gallons of gasoline consumed in US in 2017
- Almost 20 billion gallons of high value, high octane alkylates ... like those produced by KPT Process ... made each year
- Growing need for high octane gasoline and additives

ONE OF LARGEST MARKETS IN PETROCHEMICAL INDUSTRY
THE ASK

Development of Disruptive Technology for Large, Important Market Requires Partners and Support

- KPT is seeking commercial or investor partners
- KPT open to various potential funding, investor and partner scenarios
- Need $100M for next stage of development...
  Continuous process scoping and definition
- Estimate $500M for optimization, piloting and product evaluation
The Reward
Disruptive Technology to High Octane Gasoline

• Provides new lucrative alternative to high octane gasoline

• Provides large alternative market for stranded shale ethane and NGLs with significantly lower capital requirement than polyethylene

• Provides significant economic development opportunity for shale gas producing states

• Provides KPT and partners significant revenues from technology licenses and royalties