



# Calorimetry Test Design Form

## Client Contact Information

Name:		ioK Project #:	
Title:			
Company:			
Address:		Telephone 1:	
City:		Telephone 2:	
State:	Zip Code:	Email:	
Signature:		Date:	

## Test Information

<b>Test Overview</b> Number of tests: _____ Are any of these tests conditional to test results? _____		<b>Generic Type of Reaction Expected</b> <input type="checkbox"/> Polymerization <input type="checkbox"/> Decomposition <input type="checkbox"/> Nitration <input type="checkbox"/> Hydrogenation Other: _____	
<b>Testing Objective</b> <input type="checkbox"/> Thermal stability temperature range: _____ °C _____ °C <input type="checkbox"/> Isothermal testing target temperature: _____ °C Other: _____		<b>Are there expected known reactions?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Test Heat-Up Method (if known)</b> Start temperature: _____ °C (default is 50 °C) Temperature steps: _____ °C (default is 5 °C) Final temperature: _____ °C (default is 350 °C) <input type="checkbox"/> Customized (Please contact Project Manager)		<b>Other Process Data (if known)</b> Estimated onset temperature: _____ °C Estimated temperature rise: _____ °C Estimated maximum pressure: _____ psig ° <i>Please attach DSC, ARC or other calorimetry data if available.</i>	
<b>Test Vessel Material Construction</b> <input type="checkbox"/> Stainless Steel <input type="checkbox"/> Hastelloy C <input type="checkbox"/> Titanium <input type="checkbox"/> Other (please explain) _____		<b>Material Compatibility</b> Are any of the chemicals incompatible with: <input type="checkbox"/> Stainless steel <input type="checkbox"/> Silver <input type="checkbox"/> Hastelloy C <input type="checkbox"/> Zinc <input type="checkbox"/> Titanium <input type="checkbox"/> Nickel <input type="checkbox"/> Copper	
<b>Chemistry</b> Explain known incompatibilities: _____			
<b>Stirrer</b> (Default is No for ARC; Yes for APTAC) <input type="checkbox"/> Yes <input type="checkbox"/> No    Speed _____ rpm			
<b>Chemical Acquisition</b> Chemicals will be: <input type="checkbox"/> Provided by the client <input type="checkbox"/> Procured by ioKinetic (billed at cost to client)			
<b>Sample Return Request</b> <input type="checkbox"/> Return experimental product to the client for analysis (billed at cost to client) address if different from above.			



# Calorimetry Test Design Form

List of Reagents for Test Recipe(s)									
Chemical Name	Physical State at Room Temp.			Heat Capacity (cal/g°C)	Density (g/ml)	Normal Boiling Point (°C)	Viscosity Type		
	Solid	Liquid	Gas				Water	Motor Oil	Molasses

Please attach safety data sheets for each reagent. Note any characteristic personnel safety hazards to be aware of when handling reagents or reaction products.

Recipe Specifications			
<b>Test Recipe #1</b>		Pad Gas: <input type="checkbox"/> Air <input type="checkbox"/> Other _____	
Chemical Name	Charge Mass	Wt. % in Vessel	Other Information
<b>Test Recipe #2</b>		Pad Gas: <input type="checkbox"/> Air <input type="checkbox"/> Other _____	
Chemical Name	Charge Mass	Wt. % in Vessel	Other Information

If additional recipes are required please attach additional pages as necessary to define the tests. Expected chemistry reaction products and potential decomposition products should be provided.

Mixing Reagents <i>Note important steps for mixing reagents (order of addition, temperature requirements, etc.)</i>

Other Process Information <i>Provide additional information regarding the process (moles of gas to be generated, etc.)</i>

Additional Comments

For Lab Use Only		Job Number	
Clean-out: <input type="checkbox"/>	Neutralization <input type="checkbox"/>	Special Procedure:	
Tests Completed:		Date Completed	