



## SUMMARY OF CAPABILITES & EQUIPMENT

### *Staffing*

Alpha Research Inc. currently employs a total of 70 people. Of these, 46 are scientists, with 11 being Ph.D. chemists. In addition, Alpha employs 4 engineers as well as supporting administrative personnel.

### *Synthetic Organic Chemistry*

- 300 MHZ Bruker NMR (H,C,F,P)
- SD-2 Varian Prep HPLC, 200ml/min
- 75M Flash Biotage LC
- 6"x 4ft static chromatography columns
- 0.5 to 4L Parr Hydrogenators
- Over 100 linear feet of fume hood space

### *Analytical*

- 6 Agilent 1100/1200 HPLC's with diode array and variable wavelength detectors
- 3 Waters 2695 HPLC's with diode array and variable wavelength detectors
- 2 Agilent 6890N GC's with FID detectors, 1 with Headspace Autosampler
- 1 Dionex ICS 3000 Ion Chromatograph (both Anion and Cation)
- 1 Bruker microTOF focus LCMS (Accurate mass capability)
- 1 FTIR
- 1 UV Spectrophotometer
- 1 Polarimeter
- Volumetric and Coulometric Karl Fisher Titrators
- Multi purpose potentiometric titrator
- DSC, ICP testing available through local contract laboratory through CDA
- Single Crystal and Powder X-ray Diffraction available through local university under CDA

### *Stability Testing*

- 4 Binder Stability Chambers
- Stability Chambers set at:
  - -20°C
  - 5°C
  - 25°C/60%RH
  - 30°C/65%RH
  - 40°C/75%RH
- ICH photostability testing capability

### *KiloLab*

- 4L Parr Pressure Reactor
- 20L Rotary Evaporator
- 150M Biotage Flash Chromatography System
- Dedicated HVAC system with HEPA filtration
- Walk-in 12ft x 8ft fume hood within separate room with air lock entry
- Walk-in 5ft x 3ft fume hood within separate room with air lock entry
- Warehouse and storage rooms
- 20L Buchi Glass Lined reactor -80 to 200C
- Associated addition and work up equipment
- Glass reaction vessels
- 50L Glass reactor -30 to 150C

### *Pilot Plant*

- 200L Glass lined reactor -80 to 200C
- 400L Glass lined reactor -30 to 200C
- Supporting equipment and facilities

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### **Alpha Research Inc.**

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