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Analytical Research Group (ARG)

ARG Instrument List

FTIR Analyses

Request for ARG FTIR Analyses [1] [2]

Spectroscopy and Chromatography

(contact is Dongxiang Wang [3])

Information on Free Training and Workshops [4]

Request for ARG Chromatography & Spectroscopy Analyses Form [2]

GC-Lab Sign-Up [5]

- **Shimadzu QP-5000 GC/MS** - GC/MS and direct insertion probe MS
- **Shimadzu QP-2010 GC/MS** - Determining relatively high molecular weight pyrolysis materials
- **HP 5971 GC/MS (CDS Pyroprobe 1000)** - Pyrolysis-GC/MS and desorption of high molecular weight materials
- **HP 5890 Chiral Separations** - Resolution of structurally similar compounds (e.g., isomers)
- **HP 5890 S and P Selective Detection** - Sulfur and Phosphorus detection (PFPD)
- **HP 5890 Simulated Distillation** - Measuring boiling point distribution in complex mixtures
- **Shimadzu GC-17-A** - Separation of compounds in gaseous mixtures (FID and TCD)
- **Waters 600E/996 PDA HPLC** - Characterization of liquid non-GC amenable mixtures
- **Varian CP3800** - Nitrogen and phosphorus detection (NPD)

Proximate and Ultimate Analysis

(contact is Ron Wasco [6])

- **LECO CHN 600** - CHN Determination
- **LECO SC 144DR** - Total sulfur determination
- **LECO MAC 400** - Proximate analysis

Physical Properties

(contact is Ron Wasco[7] or Gary Mitchell[8])

Request for ARG Physical Properties Analyses Form [9]

- **Quantachrome Autosorb** - Surface area analyses
- **Quantachrome Mercury Porosimeter** - Pore volume analyses
- **Quantachrome Multipycnometer** - Helium density analyses
- **Malvern 2600C** - Particle size analyses
- **Malvern GEM-200-900HR** - Rheometer
- **Bohlin Rotational Viscometer** - Viscosity analyses
- **Micromeretics Gemini** - BET surface area analyses

Thermal Analysis

(contact is Ron Wasco[10])

- **Perkin Elmer TGA 7** - TGA
- **Micromeretics Autochem 2910** - Automated catalyst characterization
- **Mettler Toledo DSC1** - Differential Scanning Calorimeter
- **Parr Adiabatic Calorimeter** - Calorific value
- **Krüss Drop Shape Analysis System DS 100**
- **ThermTest** - TPS Optimized Thermal Property System

Optical Microscopy

(contact is Gary Mitchell[11])

- **Leitz Orthoplan Microscope** - Reflected light or fluorescence intensity measurements
- **Leitz Orthoplan Microscope** - Spectral analysis
- **Leitz DM4000 Microscope -** Reflected and transmitted white and blue light illumination
- **Zeiss Axiophot Infinity** - White/blue light, photometric and photographic capabilities
- **Zeiss Universal Microscope** - White or white/blue light and photographic capabilities
- **Nikon Microphot FXA Microscope** - PGT image analysis system

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Source URL: http://www.energy.psu.edu/sp/facilities/arg.html

Links:

[1] http://www.energy.psu.edu/sites/default/files/files/FTIR_User_Request_Form.pdf
[2] http://www.energy.psu.edu/sites/default/files/files/GC-MS-NMR User Request Form.pdf
[3] mailto:dxw43@psu.edu?subject=Spectorscopy%20%26%20Chromatography%20web%20site%20question
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