

During the past ten years, ASU has developed modern laboratory equipment (approximate total value of 780,000 Euro) for the detailed physical, chemical and morphological characterization of materials, including:

- High Resolution Transmission Electron Microscope (HRTEM) (JEOL JEM 2010) equipped with X-ray Microanalysis (Oxford INCA)
- Scanning Electron Microscopy (JEOL 6300) and X-ray Microanalysis (ISIS 2000)
- Catalyst Characterization with Temperature Programming Methods (AMI-1, Altamira) and Mass Spectrometer Detection (Balzers, Omnistar)
- Study of Pore Structure with N<sub>2</sub> physisorption (Autosorb-1, Quantachrome)
- Thermogravimetric Analysis – Differential Scanning Calorimetry (TGA-DSC) (SDT 2960, TA Instruments)
- Elemental Analysis with ICP Spectroscopy (Optima 4300 DV, Perkin Elmer)
- Crystalline phase identification and lattice parameters with X-ray Diffraction (Siemens D-500)
- Particle Size Distribution (Mastersizer X, Malvern)
- Catalyst Preparation