

The Materials Science Program in the Department of Mechanical Engineering has recently opened an x-ray analysis laboratory with two **Philips** x-ray diffractometers. The instrumentation was funded from National Science Foundation, Division of Materials Research and the U of R with equipment help from Bausch & Lomb and Philips Analytical. The total value of this facility is about \$478,000. The Materials Research Diffractometer, MRD, is well suited for very high-resolution work especially for thin films and single crystal multilayer diffraction analysis; the Multi Purpose Diffractometer, MPD, is for powder or polycrystalline diffraction analysis at room or non-ambient temperatures. These instruments have a wide range of applications: high resolution rocking curves for electronic wafers, quantifying defects and perfection in high quality crystals, measuring thin film