A versatile university-grade research lab in a high school setting
RANDALL TAGG, University of Colorado Denver, CAROL MCBRIDE, Aurora Public Schools — Early experiences with physics at the advanced level of active research are feasible in a high school setting. A versatile and modular framework for supporting such experiences across a large school district is located in a free-standing building next to Gateway High School in Aurora, Colorado. Called the Innovation Hyperlab, this facility provides the technical infrastructure of 52 different technologies ranging from materials to electronics to optics to microtechnology. A modular curriculum supports learning “on demand” as projects proceed. Elements of this curriculum are also being integrated into mainstream daytime coursework for high school students, including regular physics courses and a new set of courses on biomedical instrumentation. An Innovation Academy provides a weekend venue for students to go beyond normal classwork and pursue active research and technical innovation mentored by teachers and university undergraduates.