

## CHM Test Bed: Roll-to-Roll Process Facility

The CHM has established a unique roll-to-roll (R2R) process facility that will serve as a test bed for scaleable, cost-effective nanomanufacturing of functional, nanostructured materials and devices. This facility includes new process tools for UV-assisted R2R nanoimprint lithography and R2R coating for nanostructured hybrid materials. The tools were developed in cooperation with our industry partners and will be delivered in Q2 and Q3 of 2011. The CHM further launched a dedicated Industry Advisory Board (IAB) to support and collaborate on the R2R test bed. The IAB includes 14 members from a broad spectrum of companies. Demonstration projects will include polymer batteries, membranes for nanoseparations, flexible photovoltaics and flexible electronics. New collaborations with MIT, Rice and the Center for Nanoscale Science and Technology at NIST bring additional expertise in manufacturing science and metrology to the effort.



UMass NanoEmboss R2R NIL Tool

(designed and constructed in collaboration with Carpe Diem Technologies, Inc.)

