

Abstract Submitted  
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**A Multi-Sample Melt Micro-Rheometer** KALMAN MIGLER, NIST,  
ANTHONY BUR — We have developed a multi-sample melt micro-rheometer  
(M3R) based on pressure driven channel flow and designed for simultaneous mea-  
surement of multiple polymer melts. The required sample size is less than 100 mg.  
The driving force for the rheometer is pressurized gas from a nitrogen tank that  
forces polymer melt into a slit. The melt flow is monitored using a video camera  
that views the flow front through a sapphire window. The device contains no moving  
parts and no gaskets or O-rings. Measurements of polyethylene and polycarbonate  
are presented.

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