

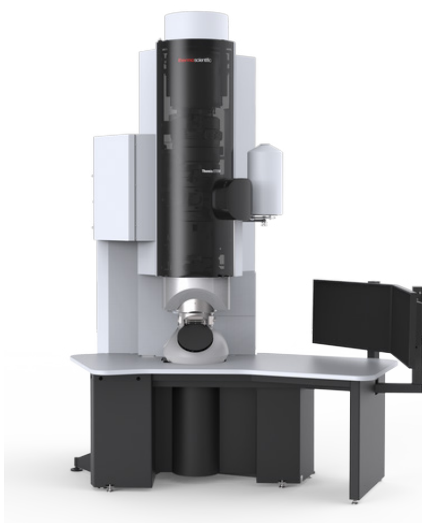
CONTINUOUS LABORATORY MONITORING

HIGH DEFINITION INSTRUMENTATION

CHALLENGES

High definition imaging equipment such as electron microscopes and NMR's offer a whole new world previously unseen. A side effect of increased resolution is that vibration tolerances in the lab environments are more stringent – even the slightest levels of vibration can alter accuracy, reproducibility and quality control: critical factors to the success of research. Micro-vibration is part of a body of environmental threats that surface from the world of physics, each contributing to lab disruption. We call these threats *enviro-markers*, and they also include ultra-sonic sound and audible

sound. Some of these threats are beyond human perception and caused by common factors such as human activity, base building systems, and other laboratory equipment.



	$\mu\text{m/s}$	$\mu\text{in/s}$
VC-A	50	2000
VC-B	25	1000
VC-C	12.5	500
VC-D	6.25	250
VC-E	3.12	125
VC-F	1.6	62.5
VC-G	0.78	31.3
VC-H	0.39	15.6
VC-I	0.195	7.8
VC-J	0.1	4
VC-K	0.05	2
VC-L	0.24	1
VC-M	0.012	0.5
Nano-D	(1.6) 6.4	(62.5) 250
Nano-E	(0.8) 3.2	(31.3) 125
Nano-EF	(0.53) 2.1	(18) 80

SOLUTION

Moment's Continuous Lab Monitoring (CLM) process comprehensively monitors and digitally documents environmental conditions so that the stakeholders of research have a roadmap to fully auditable and reproducible research.

Vibration Criterion Curves

