



HYSITRON INC.

NOTICE

It has come to Hysitron's attention that one or more individuals have claimed that a patent issued in the United States covers every instrument capable of in-situ TEM or SEM nanoindentation. This is an official notice that those claims are completely false. Additionally, no company has a patent that covers Hysitron's cutting-edge PicoIndenter™ technology.

Hysitron regularly reviews patents in fields where it is actively involved in research, and the TEM- and SEM-related nanoindentation field is no exception. After a careful technical and legal review, Hysitron has determined that no patent has issued in the United States which covers the entire field of in-situ TEM or SEM nanoindentation. In fact, no such patent is even possible. Nanoindentation has been performed in conjunction with transmission electron microscopy (TEM) and scanning electron microscopy (SEM) since the late 1960's, and United States and international law prohibit patents that claim pre-existing technologies.¹ See, e.g. 35 U.S.C. § 102. Therefore, any patent claiming such a broad scope would necessarily be invalid and unenforceable.

Hysitron has conducted research related to nanoindentation in conjunction with electron microscopy for many years, in part through research grants from the United States government. In fact, Hysitron's patent-pending TEM PicoIndenter™ (which was developed in part under an SBIR grant from the United States government) is the first full-fledged, depth-sensing indenter capable of direct-observation nanomechanical testing in a TEM. Again, no company has a patent that covers Hysitron's PicoIndenter™ technology. All claims to the contrary should be viewed as misleading marketing.

Hysitron's nanoindenters are used daily by leading and astute materials researchers around the world. Hysitron stands behind every instrument and customer located on six continents. Should you have any questions relating to this notice, or further issues of false advertising, please contact us. Hysitron always appreciates the opportunity to promote knowledge.

¹ See, e.g., "The direct measurement of the strength of metals on a sub-micrometer scale", N. Gane, *Proc. R. Soc. London, Ser. A* 317, 367-391 (1970). See also, "An in situ nanoindentation specimen holder for a high voltage transmission electron microscope", M.A. Wall and U. Dahmen, *Microsc. Res. Tech.* 42, 248 (1998); "Development of a nanoindenter for in situ transmission electron microscopy", E.A. Stach, T. Freeman, A.M. Minor, D.K. Owen, J. Cumings, M.A. Wall, T. Chraska, R. Hull, J.W. Morris, Jr., A. Zettl, and U. Dahmen, *Microsc. Microanal.* 7, 507 (2001).