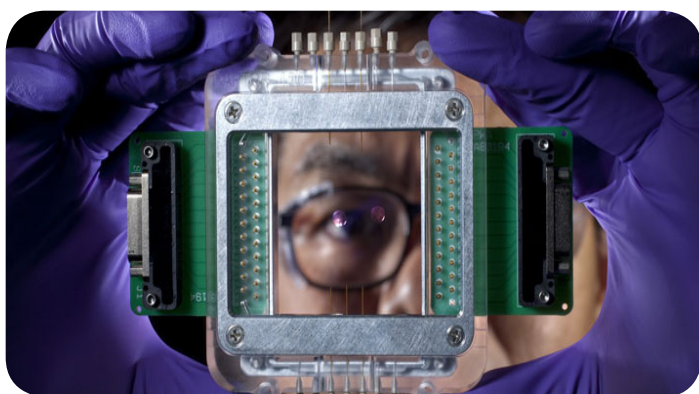


Exceptional service in the national interest
**Sandia
National
Laboratories**

Partnerships

POST

April 2013



Ready-to-Sign Licenses Available Now!

Welcome

This special edition of the *Partnerships Post* e-Newsletter highlights the latest licensing opportunities at Sandia National Laboratories.

Ready-to-Sign Licenses

There are exceptional opportunities for licensing Sandia's intellectual property, including patents, copyrights (generally software), trademarks, and maskworks. Partners can license rights for commercialization or private use.

Sandia's Ready-to-Sign licenses expedite the licensing process. A Ready-to-Sign license has standardized terms and conditions that many licensees will find acceptable, streamlining the process and avoiding the need for time consuming negotiation. These licenses are nonexclusive and priced favorably.

Licensing Opportunities

Here are summaries of six Ready-to-Sign Licenses available now:

Chemical Free Water Analysis with Nanoelectrode Arrays

Electrochemical analysis is a highly sensitive, chemically selective method for identifying and quantifying many different chemicals in water. Traditional methods required the inconvenient transport of field samples to a laboratory for chemical processing and subsequent testing. The superior Sandia-developed electrochemical analysis method eliminates the need for chemicals while increasing the effectiveness and time efficiency of the process. The unique nanoelectrode sensor array incorporates into a small, integrated sensor system which allows for rapid, non-contaminating in-field analysis at the parts per billion level. The optimal electrode density provides ideal time response and on-site sampling. This technology is well suited for environmental testing and public safety applications.

Correlation Spectrometer

Correlation spectrometers measure trace amounts of a chemical in the presence of many other chemicals by comparing the light transmission of a sample to a known reference. Sandia has developed a correlation spectrometer capable of determining the concentration of a target compound in a sample. In contrast to many conventional spectrometers, the Sandia spectrometer is simple and can be miniaturized. The spectrometer encodes dozens of reference signals onto a compact disk, alleviating the need for accompanying reference gas samples and is a superior alternative to gas chromatography methods. The disk-encoded correlation spectrometer enables rapid, high confidence point-of-service measurements of trace gases and is ideal for cases in which spectral lines cannot be fully resolved due to gas interference. Applications include public safety and hazardous process monitoring.

Hedgehog™ Water Contaminant Removal System

The highly effective in-tank Hedgehog™ recirculating treatment system reduces the levels of contaminants in water storage tanks. A recirculation pump continually sends water through a treatment in order to reduce the levels of contamination. The smaller scale, greater efficiency, and reduced cost of this filtration system make it a viable contamination removal option for small tank owners and communities. The Hedgehog™ is highly effective in treating arsenic-contaminated systems and can be expanded to filter other contaminants.

Spherical Joint Technologies

Sandia has developed a new class of freely-moving spherical joints with a very large accessible full cone angle ($>270^\circ$). These joints exhibit no singularities or dead spots in their range of motion. This large and accessible angle is beneficial for a wide range of applications, including parallel mechanisms on which flexible machining platforms and robotic manipulators are sometimes based. The full cone angle provides increased workspace of the machine and an overall increase in efficiency due to the reduced total equipment setup time.

Micromechanisms with Floating Pivot

Sandia has developed a new class of tilting micromechanical mechanisms. These mechanisms utilize floating pivot structures to relieve many of the problems encountered in the use of solid flexible pivots. Floating pivots are easy to fabricate and can replace conventional micromechanical pivots in many cases.

Frequency Modulation Drive for a Piezoelectric Motor

Sandia has created a drive system to address the critical need for applications that require high torque and low rpm. This technology allows operation of a piezoelectric motor at peak performance without feedback. Piezoelectric rotary motors are key components of industrial applications that require high torque and low rpm. Other types of motors, such as magnetic flux motors, are typically too large and have a high rpm, rendering them unusable in specific applications. Early evaluation of piezoelectric rotary motors proved that the drive frequency required to operate the motor at peak performance (highest output torque and speed) is the most critical variable associated with its operation. Therefore there is a critical need to be able to shift the drive frequency to maintain optimum motor performance.

For more information about these featured Ready-to-Sign Licenses, contact us at ip@sandia.gov or visit <https://ip.sandia.gov/readyToSignLicenses.xhtml>.

For information on other exciting technologies available for licensing, visit <https://ip.sandia.gov>.

To learn more about partnership opportunities with Sandia National Laboratories, please contact us at partnerships@sandia.gov, 505.284.2001, or visit <http://www.sandia.gov/partnerships>.

