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Portable Biochip Readers

Gennadiy Yershov, Oleg Alferov, Darrell Chandler, Alexander Kukhtin, Dennis Dougherty, David Stahl, Joany Jackman

Over the last several years, a set of small biochip readers were designed at Argonne National Laboratory. All reader models accept the 1 x 3 inch standard microscope glass format. Each model was successfully evaluated by different institutions within the United States. Due to a patented enhanced illumination method and custom lens design, the parameters such as sensitivity, reproducibility, etc., are comparable with that of other biochip readers/scanners currently on the market, however, the ANL biochip readers are much smaller and faster in comparison. The ANL portable biochip readers can be easily customized for specific applications so that even the inexperienced user will be able to operate the reader correctly. Our most recent model, which is equipped with multicolor illumination and biochip thermo control capability, will be discussed and experimental data will be presented. The readers allow reading of 3D as well as 2D-planar biochips combined with a transparent reaction chamber or flow cell containing solution. Their compatibility with different biochip platforms were tested and will be discussed, along with the specific reader applications, during the poster session.

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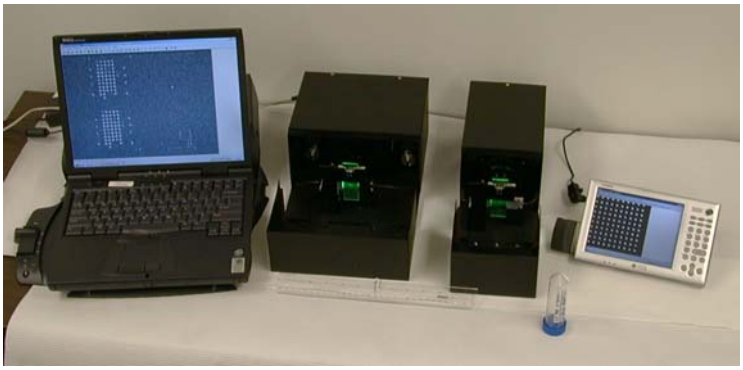

Portable biochip readers developed at Argonne

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Innovation Corridor: Research Tools
Tuesday, April 11, 1:00 PM - 4:00 PM