

DETERMINE TOTAL AND DIRECT BILIRUBIN FROM ONE SAMPLE

The Advanced Model BR2 Bilirubin Stat-Analyzer® provides a rapid, accurate determination of total and direct bilirubin in neonates. And because it's so compact and easy to use, it's appropriate for virtually any laboratory.

Advanced Instruments products are praised for their reliability, ease-of-use, and small sample size. The world's leading manufacturer of freezing-point osmometers for clinical and research applications, Advanced Instruments, Inc. designs and manufactures innovative, value-based solutions for manufacturing, quality control, microbiology and research laboratories.

The Model BR2 is the most convenient method - it's the only instrument that measures total and direct bilirubin from a single 30 µL sample.

- You get results quickly - total bilirubin is determined immediately, and direct bilirubin takes just two minutes.
- The Model BR2 is easy to use, with simple setup, calibration, and operation.
- You can depend on the Model BR2, because it's backed by Advanced Instruments, responsive Hot-Line® Service.
- With its low cost per test, the Model BR2 is an economical test method.

Clinical Implications

Bilirubin is a by-product of the breakdown of hemoglobin. When hemoglobin is metabolized, insoluble bilirubin is produced. The insoluble (indirect) bilirubin is broken down into water-soluble (conjugated or direct) form by the liver. Direct bilirubin is then excreted.

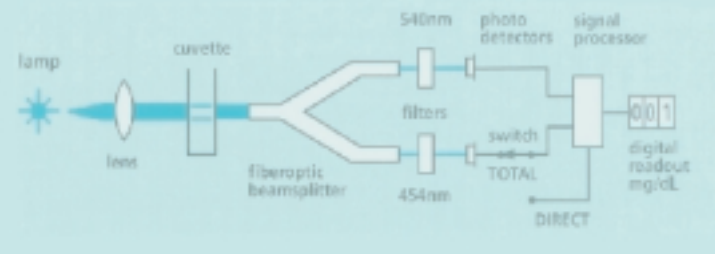
Hyperbilirubinemia (high levels of insoluble bilirubin) results in jaundice. Most neonates have some degree of jaundice shortly after birth, because the liver is not fully developed. However, prolonged hyperbilirubinemia can indicate a serious condition. It can lead to kernicterus which may result in mental retardation, serious neurologic damage, or death.

ADVANCED BILIRUBIN STAT-ANALYZER®



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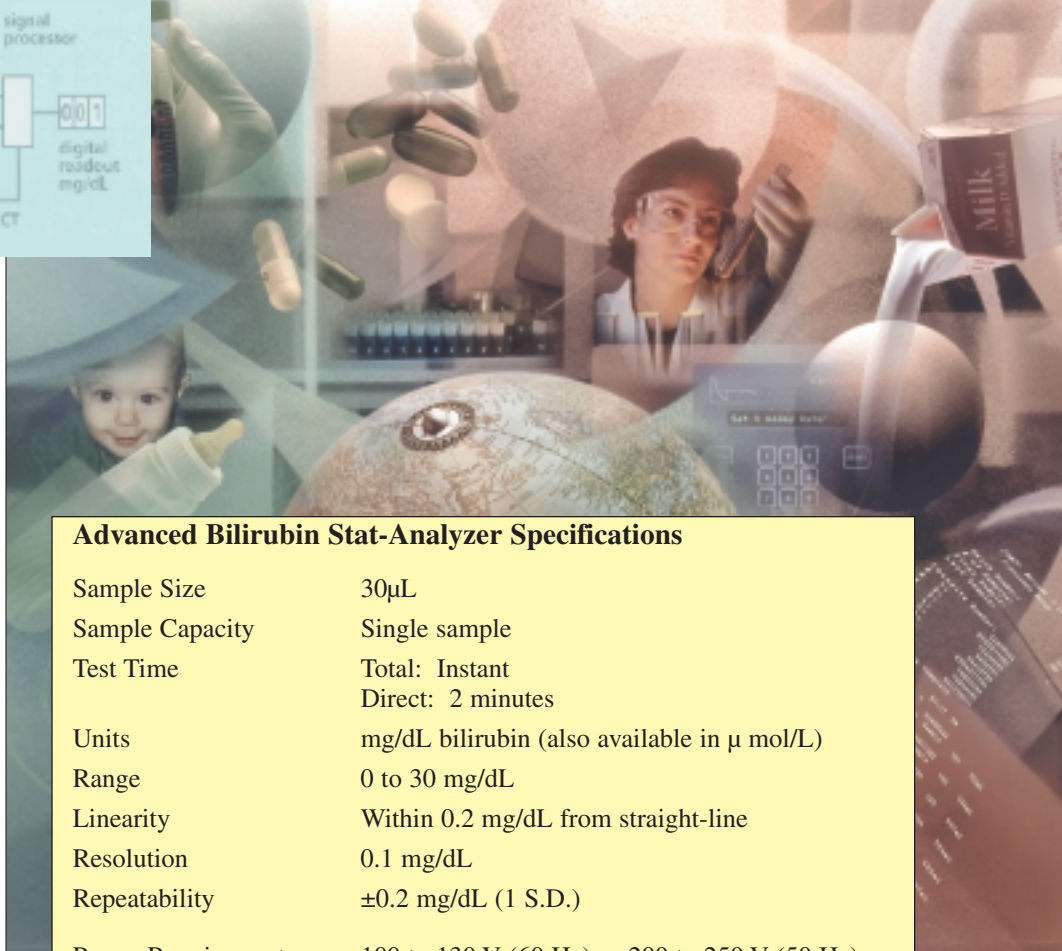
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Principles of Operation

The BR2 determines bilirubin levels through spectrophotometric analysis. A beam of light passes through the serum or plasma sample and is split into two beams. One detector measures absorbance at 454 nm and another detector measures absorbance at 540 nm. The two measurements are compared and total bilirubin is determined.

Direct bilirubin is determined by the method of Evelyn-Malloy, after Henry. This same sample is acidified and a diazo reagent is added. A color reaction with the direct bilirubin is induced, and direct bilirubin concentration is measured.



Advanced Bilirubin Stat-Analyzer Specifications

Sample Size	30 μ L
Sample Capacity	Single sample
Test Time	Total: Instant Direct: 2 minutes
Units	mg/dL bilirubin (also available in μ mol/L)
Range	0 to 30 mg/dL
Linearity	Within 0.2 mg/dL from straight-line
Resolution	0.1 mg/dL
Repeatability	\pm 0.2 mg/dL (1 S.D.)
Power Requirement	100 to 130 V (60 Hz) or 200 to 250 V (50 Hz)
Power Consumption	20 W
Dimensions	7"H x 11"W x 13"D (18 cm H x 28 cm W x 33 cm D)
Net Weight	9 lbs. (4 kg)
Shipping Weight	12 lbs. (5.5 kg)
Storage Temperature	-40 to +160°F (-40 to +70°C)
Operating Temperature	59 to 90°F (15 to 32°C)
Operating Humidity	5 to 80% R.H., non-condensing
Warranty	One-year limited warranty on workmanship and all parts except glass, plastic and parts warranted by their makers.

Certification



Hot-Line® Technical Service
Advanced Instruments Hot-Line® Service and worldwide dealer network provide comprehensive customer service and technical support.

For more information on the Advanced Instruments family of tests, please call: 800-225-4034

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