



# **HEMA - 3538TS**

# **Automatic Hematology Analyzer**



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# **Analytical Technologies Limited**

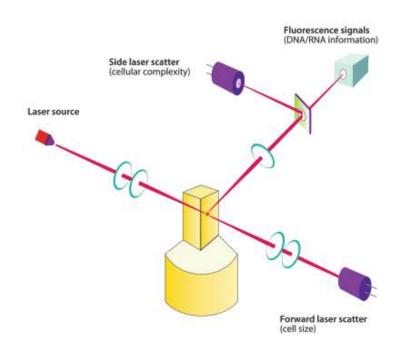
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#### >> Automatic Hemetology Analyzer

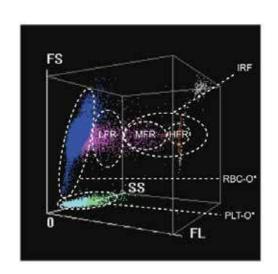
With the newly designed optics and reagent systems, the SF Cube technolou can help doctors to better differentiate the clusters of cells, which is the key to revealing more abnormal cells.



## >> Improved Clinical Diagnosis - RET Channel & Body Fluids

#### **RET CHANNEL**

With the SF Cube cell analysis technology, Reticulocytes are differentiated from the other red cells by their reaction with fluorescent stain. Besides the traditiona parameters such as RET# and RET%, 3538TS provides data concerning immature reticulocytes (IRE), which can assist in early diagnosis of anemia and monitoring the bone marrow response to therapy.

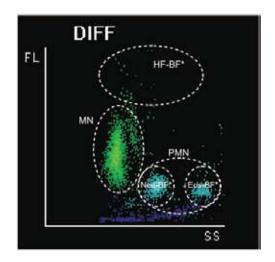




#### >> Body Fluids

Besides blood specimen, 3538TS also has body fluid test function without requiring dedicated reagent. The various types of body fluids include Peritoneal fluid, Pleural fluid, Cerebrospinal fluid (CSF) and Synovial fluid.

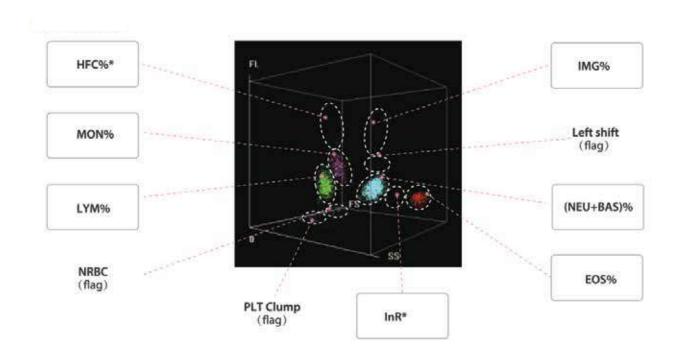
3538TS can analyze CSF and serous fluid samples to provide reportable parameters for RBC, WBC, WBC differential (polymorphonuclear & mononuclear) and total cell count (TC-BF).



Moreover, for research use only, 3538TS provides differential results for eosinophils, neutrophils as well as high fluorescent cells (HF-BF\*), which may include histiocytes, epithelial cells, spleen cells, ex- foliated cells etc.

Such additional information improves the possibility of better clinical diagnosis.

#### >> Improved Clinical Dignosis - DIFF Channel

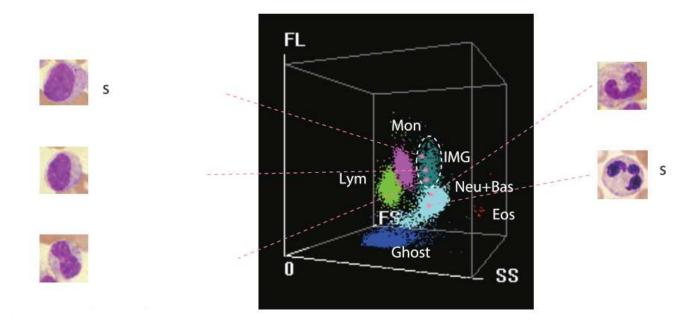




In DIFF scattergram, 3538TS not only gives WBC 5-part dierential results (with immature granulocyte), but also brings research parameters such as HFC (Blast & Atypical Lymphocyte), lnR (information about malaria) and flags for Band, NRBC, PLT clump and Atypical Lymphocyte.

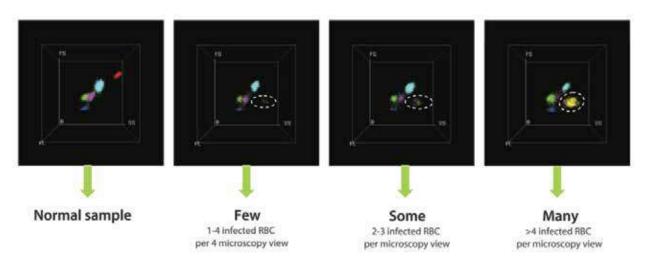
HFC\*(#, %) parameters represent high population of fluorescent cell, such as Blasts and Atypical Lymphocytes.

IMG(#, %) parameters provide information about immature granulocytes, including Promyelocytes, Myelocytes, Metamyelocytes, Immature Eosinophils and Immature Basophils.



# >> Improved Clinical Diagnosis - DIFF Channel

## Malaria screening

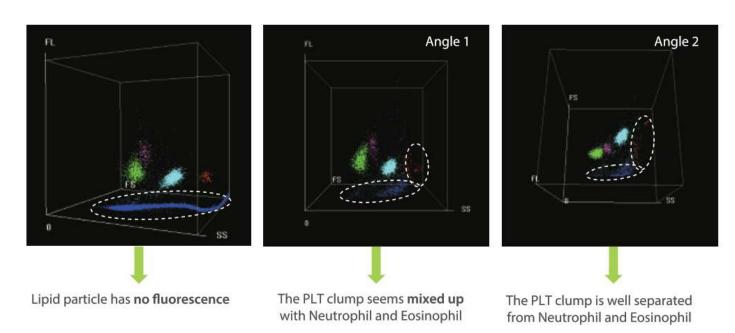




3538TS provides a dedicated flag called infected RBC?, and InR\*(#,)parameters to represent the number and ratio of the infected red blood cells in the sample respectively. 3538TS users can obtain information about the possible presence of plasmodium parasite, the causative agent of malaria infection.

With the rising number of red blood cells with malaria parasites, the number of dots in the lnR area increases proportionately. This creates the possibility to not only screen but also judge the severity of malaria infection.

#### >> Interference prevention



In DIFF scattergram, WBCs are dyed, but not lipid particles, by fluorescence, which prevents interference and ensures more accurate WBC results.

With information obtained through the 3D analysis, PLT clumps are well separated from each cluster of WBCs.

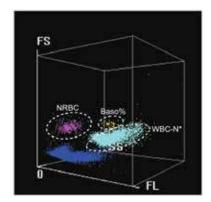
## >> Improved Clinical Diagnosis - WNB Channel

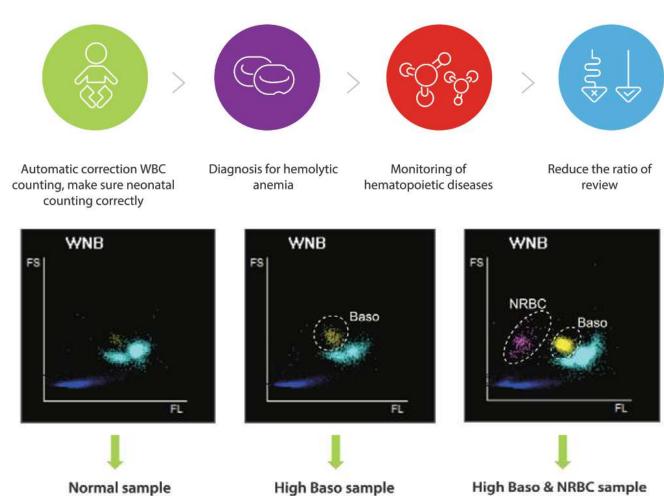
In WNB scattergram, 3538TS provides NRBC, Basophils and WBC-N\* results. It means that the actual number of NRBCs can be measured in routine CBC, if they are present in the sample.

Basophils are counted in this counting channel with NRBC results. Basophil and NRBC results are generated on 3538TS without extra reagent or cost.



NRBCs do not usually exist in the peripheral blood except that of newborn children. Detection of NRBCs is essential in diagnosing and monitoring the hematopoietic diseases.





3538TS provides accurate results on samples even with high level of Basophils and NRBCs.



#### **Ease of Use**



#### More intuituve Software

Software is a standard configuration of 3538TS for professional data analysis.

The software optimizes functions to simplify your work-flow for data analysis . It improving re-exam efficiency and auto-validation for normal samples; it also provides more intuitive interface for you to review and validate pathological samples.



#### Automatic rerun and reflex

3538TS can load up to 50 samples at a time and offers a throughput of up to 110 tests per hour. Should the sample results trigger the criteria, the autoloader of 3538TS can return the sample racks for an automatic rerun or reflex check.



#### Applicable to a variety of tubes

Different types of blood collection tubes can be used on 3538TS, including regular whole blood vacuum tube, capillary blood microtainer tube and Sarstedt tube.

It requires less sample volume and reagent consumption. For a CBC+DIFF+RET test with NRBC result, 3538TS only requires 80 pl- of whole blood and 35 PIL of capillary blood.



#### >> Technical Specification

#### **Principles**

"SF Cube\* method to count WBC, 5-part diff, NRBC, RET and PLT-O DC impedance method for RBC and PLT Cyanide free reagent for hemoglobin test.

Scatter; F: Fluorescence; Cube: 3D analysis"

#### Parameters

37 Reportable parameters (whole blood): WBC, Lym%, Mono,'o, Neu%, Bas%, Eos%, IMG%, Lym#, Mon#, Neu#, Eos#, Bas#, IMG#; RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, NRBC#, NRBC%; PCT, MPV, PDW, PCT, P-LCR, P-LCC, RET%, RET#, RHE, IRF, LFR, MFR, HFR, IPF 29 Research parameters (whole blood): HFC#, HFC%, RBC-O, PLT-O, PCT-I, WBC-O, WBC-D, TNC-D, IME%, IME#, H-NR%, L-NR%, NLR, PLR, WBC-N, TNC-N, InR#, InR%o, Micro#, Micro%, Macro#, Macro%, RPI, H-IPF, IPF#, MRV, FRC#, FRC%, PDW-SD 7 Reportable parameters (body fluid): WBC-BF, TC-BF#, MN#, MN%, PMN#, PMN%, RBC-BF 11 Research parameters (body fluid): Eos-BF#, Eos-BF%, Neu-BF#, Neu-BF%, HF-BF#, HF-BF%, RBC-BF, LY-BF#, LY-BF%, MO-BF#, MO-BF% 2 Histograms for RBC and PLT 3 Three-dimension scatter grams: DIFF, WNB, RET 5 Two-dimension scatter grams: DIFF, WNB, RET, RET-EXT, PLT-O

#### **▶▶** Mode

CBC, CBC+DIFF, CBC+DIFF+RET, CBC+RET, RET

## **▶▶** Data Storage Capacity

Up to 100,000 results including numeric and graphic information

## >> Operating Environment

Temperature: 15°~32° Celsius

Humidity: 30%~85%



#### **>> Performance**

Parameter	Linearity Range	Linearity Range	Carryover
RBC	O-500X1ff/L	≤2.5% (≥4x10°/L)	≤1.0%
HGB	0-8.60*1ff2/L	≤1.5% (≥3.5x10 <sup>12</sup> /L)	≤1.0%
НСТ	0-260g/L	≤1.0% (110-180g/L)	≤1.0%
PLT	0-75%	≤1.5% (30% -50%)	≤1.0%
RET#	0-5000x109/L	≤15% (RBC≥3x10 <sup>12/</sup> L; 1%≤RET%≤4%)	≤1.0%

# **>> Throughput**

Up to 110 samples per hour (CBC+DIFF)

Up to 65 samples per hour (RET)

Up to 40 samples per hour (Body fluid)

# >> Sample volume

Whole blood (Autoloader, Closed Tube)	80uL
Capillary blood (Closed Tube)	35uL
Predilute (Closed Tube)	20uL
Body fluid (Closed Tube)	85uL

# >> Loading Capacity

Up to 50 sample tubes



#### **HPLC Servicing, Validation, Trainings and Preventive Maintenance:**

HPLC Servicing: HPLC Servicing: We have team of service engineers who can attend to any make of HPLC promptly @the most

affordable cost.

**Trainings** :We also take up preventive Maintenace to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-

shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments: We offer instruments/Renting Services Modules like pumps, detector etc. on Rent.





#### **About Analytical Technologies**

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufaturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## **Our Products & Technologies**



UV/VIS Spectro 2080+ Double Beam



Infra FTIR



Optima Gas Chromatograph 3007



Optima Gas Chromatograph 2979 Plus



Flash Chromatograph



Atomic Absorption Spectrophotometer



Liquid Partical Counter



Optical Emission Spectrophotometer



DSC/TGA



Semi Auto Bio Chemistry Analyzer



HEMA 2062 Hematology Analyzer



Micro Plate Reader/Washer



URINOVA 2800 Urine Analyzer



Total Organic Carbon 3800



Fully Automated CLIA



NOVA-2100 Chemistry Analyzer



PCR/Gradient PCR/ RTPCR



TOC Analyzer



Laser Particle Size Analyzer



Ion Chromatograph



Water purification system

#### **Regulatory compliances**



#### **Corporate Social Responsibility**

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



- 1.Research & Innovation Scientist's awards/QC Professional Award: Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personallities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org
- 2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.
- 3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds, souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.





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