

Bayer Liquor Analysis

BLAIR competitive advantage

Compact

Fast

Easy

Value

Precise

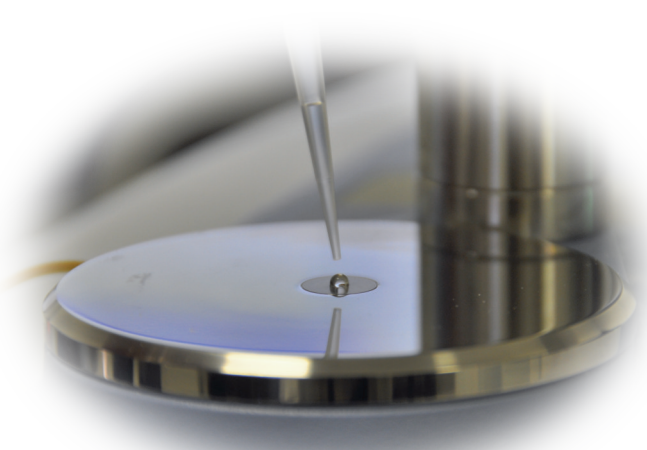
Dependable



A New Technology has Arrived

BLAIR (Bayer Liquor Analysis by Infra-red) is a spectroscopic technique for analysing bayer liquors. It requires no messy titrations, no dilution and no additional reagents. It is fast, providing an analysis of seven Bayer liquor components and all ratios in less than three minutes.

BLAIR gives repeatable and reliable results, whether you are measuring an occasional sample or analysing continuously during the day. Old methods can breakdown or provide unreliable results if not constantly maintained. Using BLAIR there is less that can go wrong as there are fewer moving parts and no additional reagents.



*Low maintenance
High performance*

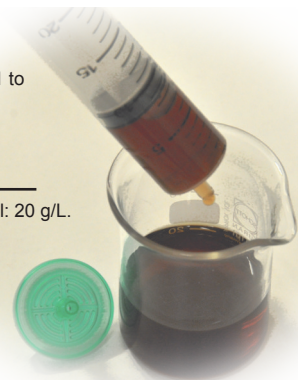
BLAIR measures alumina, total caustic, total alkali, sodium chloride, sulfate, density, TOC and various ratios including A/C, C/S and TOC/S.

BLAIR Specifications

Measurement parameters	A, C, S, SO ₄ , TOC, NaCl & density
Minimum sample volume	50 µL
Measurement time	less than 3 minutes
Precision (%RSD)#	A (0.2%), C (0.1%), S (0.1%), A/C (0.3%), SO ₄ (1.3%), TOC (0.5%), NaCl (2%), density (0.1%)
Measurement technique	FTIR
Concentration range*	A: 1 to 200 g/L, C & S: 1 to 475 g/L, SO ₄ : 1 to 50 g/L, TOC: 1 to 30 g/L, NaCl: 1 to 40 g/L
Dimensions	30 x 40 x 25 cm (w x d x h)

Repeats over several days on liquor with A: 100 g/L, C: 360 g/L, S: 380 g/L, SO₄: 10 g/L, TOC: 15 g/L and NaCl: 20 g/L.

* Extended range applications are possible.



Rapid

Convenient

Reliable

BLAIR

The BLAIR analysis system includes licences to use BLAIR technology, the BLAIR model, BLAIR software and associated FTIR hardware.

"Worth it for TOC alone"



BLAIR is a new technology replacing current titration methods. With BLAIR you get more information at a lower cost.

BLAIR analysis is rapid, requiring less than three minutes and is a time and cost effective analysis system.

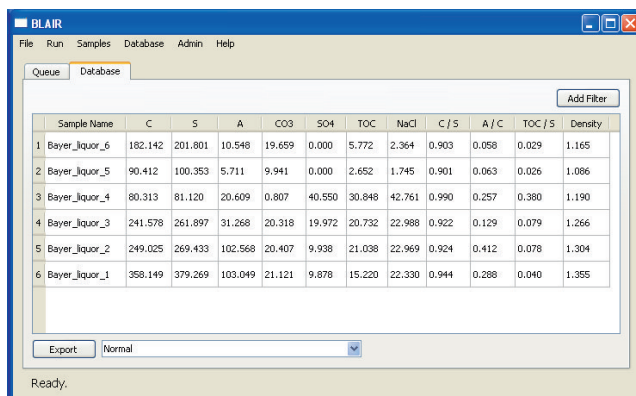
BLAIR uses small samples – one drop is enough. No additional components or reagents are necessary.

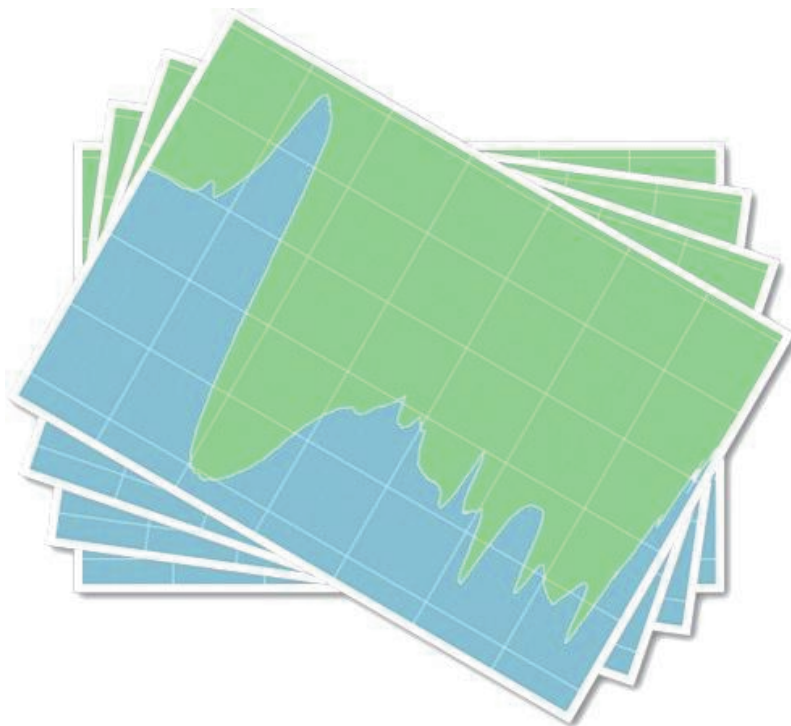
Why use BLAIR?

You need the best tools, whether optimising plant efficiency or improving environmental performance. BLAIR is a robust, low capital cost system that provides direct measurements over the whole Bayer liquor range. All from one tiny sample. With no additional reagents BLAIR gives fast and reliable results. A single measurement will give A, C, S, sulfate, TOC, chloride, density and all ratios. BLAIR does not need accurate volume delivery, and requires minimal operator intervention. It is applicable for at-line monitoring and is highly adaptable.

BLAIR Gets Results

Sample		A	C	S	SO4	TOC	NaCl	A / C	Density
Bayer liquor 1	Value	193.8	314.9	351.1	1.8	20.2	6.2	0.615	1.391
	Std Dev	0.35	0.57	0.56	0.09	0.05	0.5	0.001	0.001
Bayer liquor 2	Value	102.6	249.0	269.4	9.9	21.0	23.0	0.412	1.303
	Std Dev	0.25	0.32	0.32	0.11	0.02	0.59	0.002	0.001
Bayer liquor 3	Value	31.3	241.6	261.9	20.0	20.7	23.0	0.129	1.266
	Std Dev	0.10	0.61	0.59	0.08	0.03	0.66	0.001	0.001
Bayer liquor 4	Value	20.6	80.3	81.1	40.6	30.8	42.8	0.257	1.190
	Std Dev	0.15	0.49	0.48	0.11	0.05	0.47	0.003	0.001
Bayer liquor 5	Value	10.5	182.1	201.8	0	5.8	2.4	0.058	1.165
	Std Dev	0.21	0.27	0.23	0	0.04	0.38	0.001	0.001





Central Chemical Consulting

We are the Australian inventors and developers of the BLAIR analytical methodology and associated processes.

We are committed to the success of BLAIR installations and to increasing the efficiency of your Bayer liquor analyses. Our aim is to help you get the best from your alumina refinery - quickly, conveniently and most cost effectively.

Our PhD qualified team has many years experience with BLAIR, and can provide expert technical backup, as well as comprehensive support and training tailored to your requirements.



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