

Dear Partners

Xenemetrix at Isranalytica & Pittcon 2015

We would like to thank all our visitors at the ISI booth in Isranalytica 2015 - the 18th Annual Meeting of the Israel Analytical Chemistry Society. This was a successful platform for announcing our latest product innovations and our expanding portfolio of analytical technologies, all available under one brand.



We are looking forward to seeing you again soon at the upcoming Pittcon 2015 conference & expo in New Orleans, LA, USA on March 8-12, 2015. Please consider visiting and scheduling a meeting for reviewing updates new features and application, as well as discussing various marketing aspects.

For any queries please feel free to contact us at info@xenemetrix.com, or check the 'Contact us' tab on our website to find authorized representatives near you.

Yours,
Xenemetrix Team

Tip of the Month

Secondary target mode

Process: The X-ray tube excites the characteristic K lines of a secondary target and these lines are used to excite the sample "monochromatically".

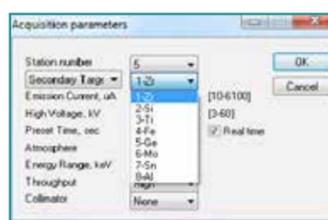
The main advantage of using secondary targets instead of direct excitation mode, is dramatically decreasing the background noise, thus increasing the detection limit.

The Secondary Target feature is available in laboratory systems - X-7600 and EX-6600, and in the bench top system - Genius IF.

In order to access this feature, please follow these steps

1. Click the 'Acquisition Parameter' button > select 'Secondary Target' mode
2. Select an appropriate target according to your application
3. Set the voltage according to the recommended values

Application	Target	Recommended voltage [kV]
Na, Mg and Al	Si / Al	20
Si, P, S, Cl, Ar, K and Ca	Ti	25
Sc, Ti, V and Cr	Fe	30
Mn, Fe, Co, Ni, Cu, Zn, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho and Er	Ge	35
Ga, Ge, As, Se, Br, Kr, Rb, Hf, Ta, W, Re, Os, Ir, Pt, Au, Hg, Tm, Yb and Lu	Fe	45
Sr, Y, Pb, Bi and Po	Mo	50
Zr, Nb, Mo, Ru, Rh, Pd, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es and Fm	Sn	Genius IF- 50 Laboratory systems- 55



4. Set the emission current to a value that yields the highest possible Dead Time (maximum 40%)
5. Set the other acquisition parameters according to your application
6. Click Ok and click the 'Start Acquisition' button to receive the spectrum

For more tips & support please contact us at: info@xenemetrix.com

Application Highlight

Genius IF - a rapid, reliable and accurate multi-element EDXRF Analyzer, providing excellent trace metal analysis in hydrocarbon products

Genius IF provide a rapid and accurate determination of trace metals in crudes, lubricants and used oils, without extensive sample preparation or expensive consumables. The analyzer uses the revolutionary secondary target technique to measure metals at unprecedented detection limits in a robust analyzer configuration, designed to perform in demanding petroleum and industrial environments, such as refineries or the petro-marine industry.

The X-ray tube in the Genius IF excites the characteristic K lines of different kinds of software selectable secondary targets. Photons at specific energies from the target are used for monochromatic excitation of the sample. The great advantages of secondary target excitation as compared to "classical" direct excitation with an X-ray tube are numerous - the major one being that the background noise, which is constantly present in the direct excitation mode, is "lost" on the secondary target, and does not reach the detector. The substantially reduced background noise in the spectrum provides for increased peak to background ratios and significantly reduced limits of detections. This is the basis for an excellent elemental trace analysis of hydrocarbon products.

Figure 1: Secondary Target Excitation Principle

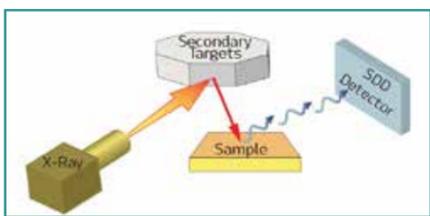


Table 1: Genius IF Limits of Detection (LOD) of Metals in Oil (Example)

Element	P	S	Cl	K	Ca	V	Mn	Fe	Co	Ni	Cu	Zn	Hg	As	Pb	Se
LOD (ppm) 600s	1.5	0.7	2.1	0.4	0.3	0.1	0.06	0.05	0.07	0.05	0.05	0.04	0.07	0.04	0.06	0.03

For more details please contact us at: info@xenemetrix.com

Coming Next: New Applications, Tips & Innovations



Xenemetrix is a leading designer, manufacturer and marketer of Energy-Dispersive X-Ray Fluorescence (EDXRF) systems. With more than 30 years experience, Xenemetrix continues to develop highly innovative technologies and solutions suitable for today's ever-growing analytical challenges. Xenemetrix combines the latest technological developments with innovative engineering, to provide cost-effective solutions to a wide range of industries and applications.

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