

## X-RAY FLUORESCENCE (XRF) PAGE

**XRF Meeting 10<sup>th</sup> May 2006**, at the British Geological Survey, (BGS) Keyworth, Nottingham.  
**Sponsored by:** Ametek – Spectro, Analysco, BrukerAXS, HORIBAJobin Yvon Ltd, PANalytical and Rigaku.

We are pleased to announce that the BCA is collaborating with the **Royal Society of Chemistry, Atomic Spectroscopy Group** for this meeting. A flyer with more information on the meeting is included with this Newsletter; please pass on a copy to your XRF colleagues.

**Offer a short talk!** We are particularly keen to encourage XRF USERS to give short talks in the afternoon session at this meeting. Even if you have never given a talk in the past then this is your opportunity to make a short (10 minutes) presentation about what you do with XRF, share an experience or seek a solution to a problem. Contact any of our XRF team to discuss a contribution – see below for details.

Please make a special effort to attend this meeting and become part of a growing independent group of XRF users. Keep an eye on the meeting web page for the latest programme details.

**Meeting Fees:** £30 (£15 concessions) - open to non-members at no extra charge. Registration will be on-line with a link from the web meeting page and will be available soon.

### **XRF Jobs Page**

We have started an XRF jobs page on the web with links to UK jobs of interest to our members. Please let us know of any XRF jobs we should link on our page by following the instructions on our Jobs Page.

### **Wanted: Mass attenuation Coefficients (mac)**

Mac calculations are very useful in XRF - if you match the mac's of your samples and standards, calibration problems will be minimised. Calculating mac values from tabulated data is straightforward but tedious. You need to work out the mass fractions of individual elements in a mixture, and then

multiply each of these by the appropriate mac value for the X-ray line of interest.

In the past, I've used a suite of rather elderly DOS programs. These work OK, but the system is limited by two factors:

1. Results are not stored (it originated with a system that printed it all out on a teletype).
2. The mac database has to be created by hand.

Needless to say, I've only input the data I'm most likely to use.

I'm creating a spreadsheet version that could in due course be made available on our web pages. This works, but the limiting factor is the mac database. Searching the web, I've found data for the K alpha and L alpha lines, but not for any other lines. To be comprehensive, I need data for absorbing elements down to at least uranium, for particular lines of particular radiating elements (a lot of the data available is by wavelength or energy but this is no use). This is a lot of data to type it in myself - typically 5500 - 6000 values per X-ray line. So... does anyone know where I can get machine-readable tabulated data of mac values for K beta, L beta, M alpha or other lines?

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**WEB Newsletter** – We run a web only XRF Newsletter, check the web for latest edition.

### **BCA XRF Contacts:**

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**Dates for 2007** 17-19<sup>th</sup> April BCA Spring Meeting with a full XRF programme & Exhibition.