InSpirAtion [Spectra Data Processing software]

ID : AES-13-007e-01
Instrument : **JAMP-9510F**

Key Word: AES, deconvolution, Chemical state, Data processing

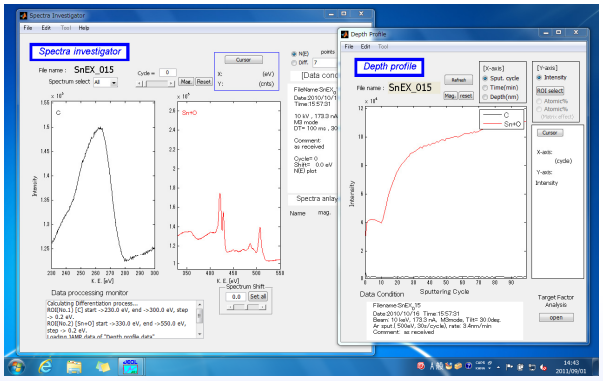
Spectral Analysis Software (***Spectra Investigator***)

Did you give up analyzing the chemical state by a Auger spectrum ? Because it was difficult to detect it by AES..... Those days are gone !

One button action can detect the chemical state in a practical Auger spectrum by referring to the standard spectrum library even if it was overlapped with several elemental peaks.

Spectra investigator

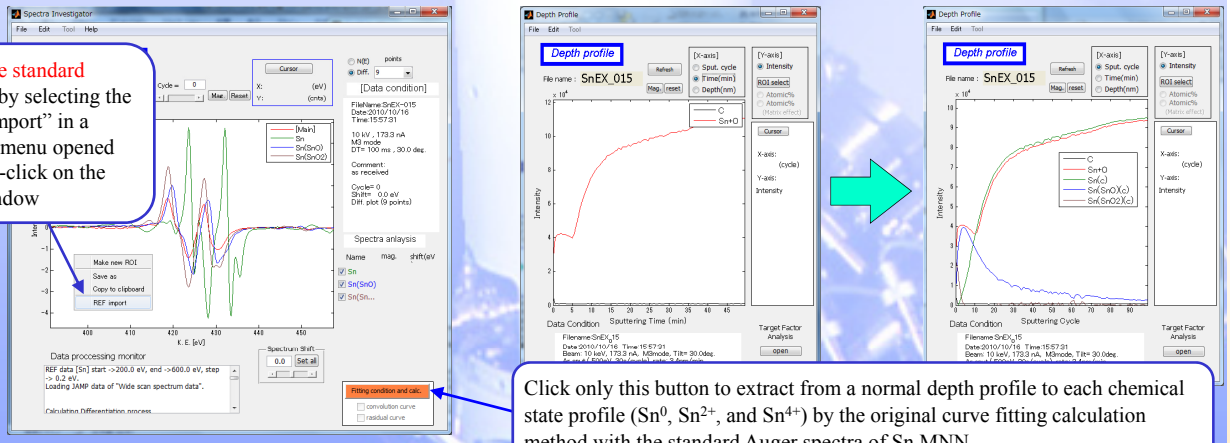
1. "Direct access" all spectrum data in an original JAMP format. No need to export !
2. Easy operation for the "Curve Fitting Calculation" with non-linear least square method.
3. "Target Factor Analysis" can be carried out by one button action.
4. "Standard Spectrum Database" is included for all energy resolution of 0.05 – 0.6%
5. Export functions to CSV or TIFF format.



All spectrum data acquired by JAMP-9500F or 9510F can be treated by your PC (Windows XP, Windows 7, Linux) without exporting !

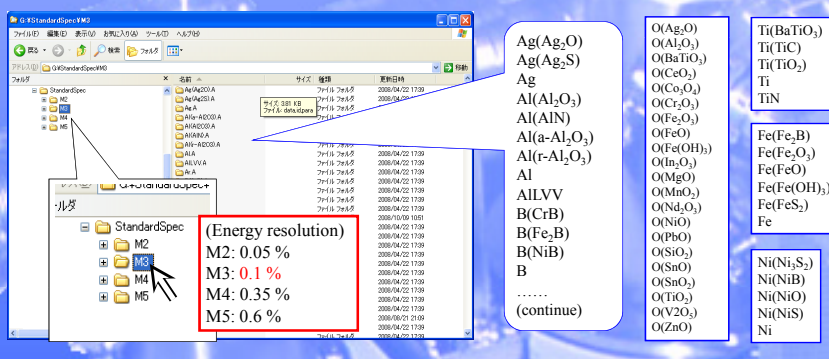
◆ Chemical state analysis to the depth profile data – Curve fitting calculation with non-linear least square method –

All Auger spectra measured with higher energy resolution have the unique peak shape at the different peak position due to the chemical bonding state of element. The depth profile according to each chemical state can be obtained quickly by original curve fitting calculation method with the standard spectrum library.



◆Standard Spectrum Library

The standard spectrum library includes many spectra measured with various energy resolutions of 0.05 to 0.6 %.



Ag(Ag_2O)
Ag(Ag_2S)
Ag
Al(Al_2O_3)
Al(AlN)
Al(a-Al_2O_3)
Al(r-Al_2O_3)
Al
AlLVV
B(CrB)
B(Fe_2B)
B(NiB)
B
.....
(continue)

$O(Ag_2O)$
$O(Al_2O_3)$
$O(BaTiO_3)$
$O(CeO_2)$
$O(Co_3O_4)$
$O(Cr_2O_3)$
$O(Fe_2O_3)$
O(FeO)
$O(Fe(OH)_3)$
$O(In_2O_3)$
O(MgO)
$O(MnO_2)$
$O(Nd_2O_3)$
O(NiO)
O(PbO)
$O(SiO_2)$
O(SnO)
$O(SnO_2)$
$O(TiO_2)$
$O(V2O_5)$
O(ZnO)

$Ti(BaTiO_3)$
Ti(TiC)
$Ti(TiO_2)$
Ti
TiN

$Fe(Fe_2B)$
$Fe(Fe_2O_3)$
Fe(FeO)
$Fe(Fe(OH)_3)$
$Fe(FeS_2)$
Fe

$Ni(Ni_3S_2)$
Ni(NiB)
Ni(NiO)
Ni(NiS)
Ni

The high-accuracy chemical state analysis needs to compare a practical Auger spectrum to standard spectra measured with the same energy resolution.

The standard spectrum library is in the standard configuration of "Spectra Investigator".

[The standard spectrum library]
- more than 150 species of chemical compounds
- classified according to energy resolution
- containing more than 500 spectra

Access the QR codes below for more information on the Field Emission Auger Microprobe

◆Overview →

◆Mechanisms →

JEOL
http://www.jeol.co.jp

Field Emission Auger Microprobe AES Application

Breaking technology news