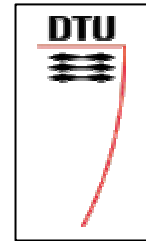


# Raman Mapping of KCl-Na<sub>2</sub>SO<sub>4</sub> 60/40.

D.H.Kerridge and R.W. Berg. December 2000. File overheadgggh0



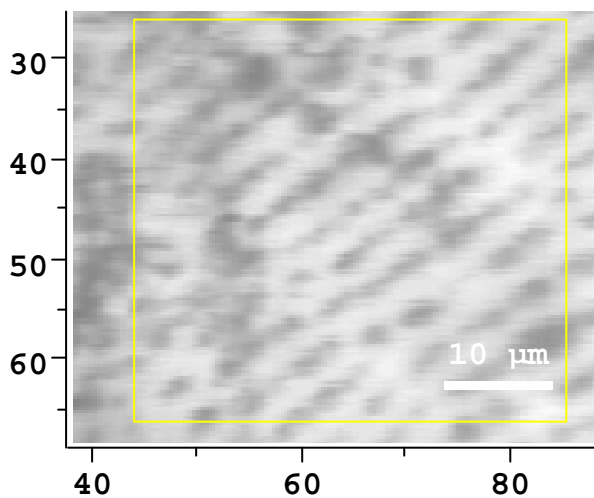
DILOR XY Raman Spectrophotometer, N<sub>2</sub>-cooled CCD detector.

File: October/26-00/ Sample: Polished KCl-Na<sub>2</sub>SO<sub>4</sub> 60/40 mol %.

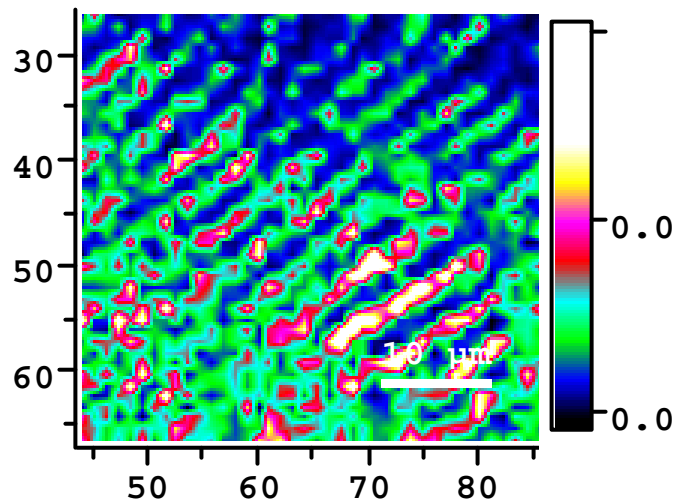
Slit 100 micrometer. Hole 100 micrometer. Laser = 514.5nm.

Second Monochromator, Grating 600 gr/mm. Notch, direct pass. Spectral resolution 5.5 cm<sup>-1</sup>.

Objective 50X. Spatial resolution: ~2 micrometer. Time: 1.5 s, Accumulation: 2 times.



← GGGH: Normal image seen in microscope.



→ GGGH0: Calculated Raman Image "Gr/BI".

→ For each of the 1600 pixels:

→ "Gr"=Area from 950 to 1050 cm<sup>-1</sup>.

→ "BI"=Area of laser line from -100 to 100 cm<sup>-1</sup>  
(a kind of "internal standard").

White areas represent places with high presence of SO<sub>4</sub><sup>2-</sup> (band at ~975 cm<sup>-1</sup>, the  $\nu_1$  symmetric stretching of sulfate). Spectra of pixels at areas with high (A), medium (B) and low (C) Na<sub>2</sub>SO<sub>4</sub> contents are shown ->.

(A): Pixel x= 50, y = 50.

(B): Pixel x= 70, y = 50.

(C): Pixel x= 83, y = 33.

