

ISR PERFORMANCE REPORT

Run 272, 20th December, 1972

Calibration of B.P.M.

1. In Ring 1 a beam of 76 mA was shaved at the injection orbit with the scraper (*) rising vertically step by step. At each position of the scraper the vertical half width of the beam was measured by the B.P. In Figure the beam half width $\Delta_{0.5}$, the current I and the distance y of the scraper to the median plane multiplied by the square root of the β -ratio at the B.P. and at the scraper ($= 0.57$) are plotted over the position of the scraper.
2. In Ring 1 a stack of 3.05 A was placed at the position +5, -2 on the working line 5C 22. The stack was scraped as in the previous experiment. The results are plotted in Figure 2. At a current of 96 mA the beam was displaced vertically (+2) in order to check the homogeneity of the fluorescent screen of the B.P. No significant effect has been noticed. The rest of the beam was scraped horizontally in the direction (-x), which further diminished the vertical half width.
3. Remarks :
 - (a) As the two experiments have shown at the time when almost all of the beam was scraped, the measured beam half width $\Delta_{0.5}$ stayed about 2.5 mm. However, this cannot be the resolution of the sodium curtain, since one can distinguish a tail of the beam, having a height of 1 mm (photo 30). Furthermore, one can measure vertical profile slopes indicating a resolution of at least 1 mm.
 - (b) Towards the end of the scraping process there appears a small peak in the lower part of the vertical beam profile (photo 12).

B. Vosicki

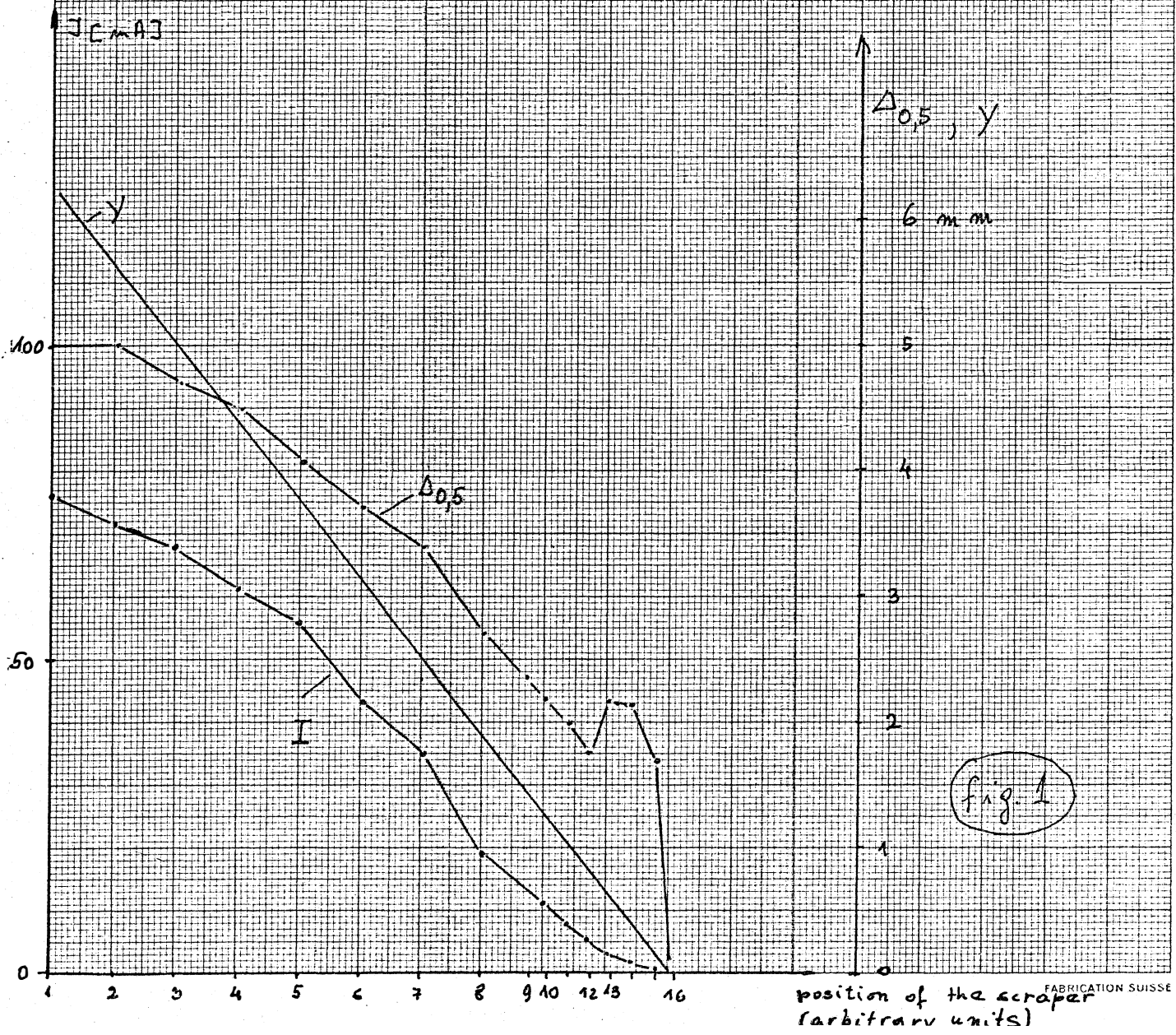
K. Zankel

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CM-P00072701

(*) G.P. Scraper, Pos. 309



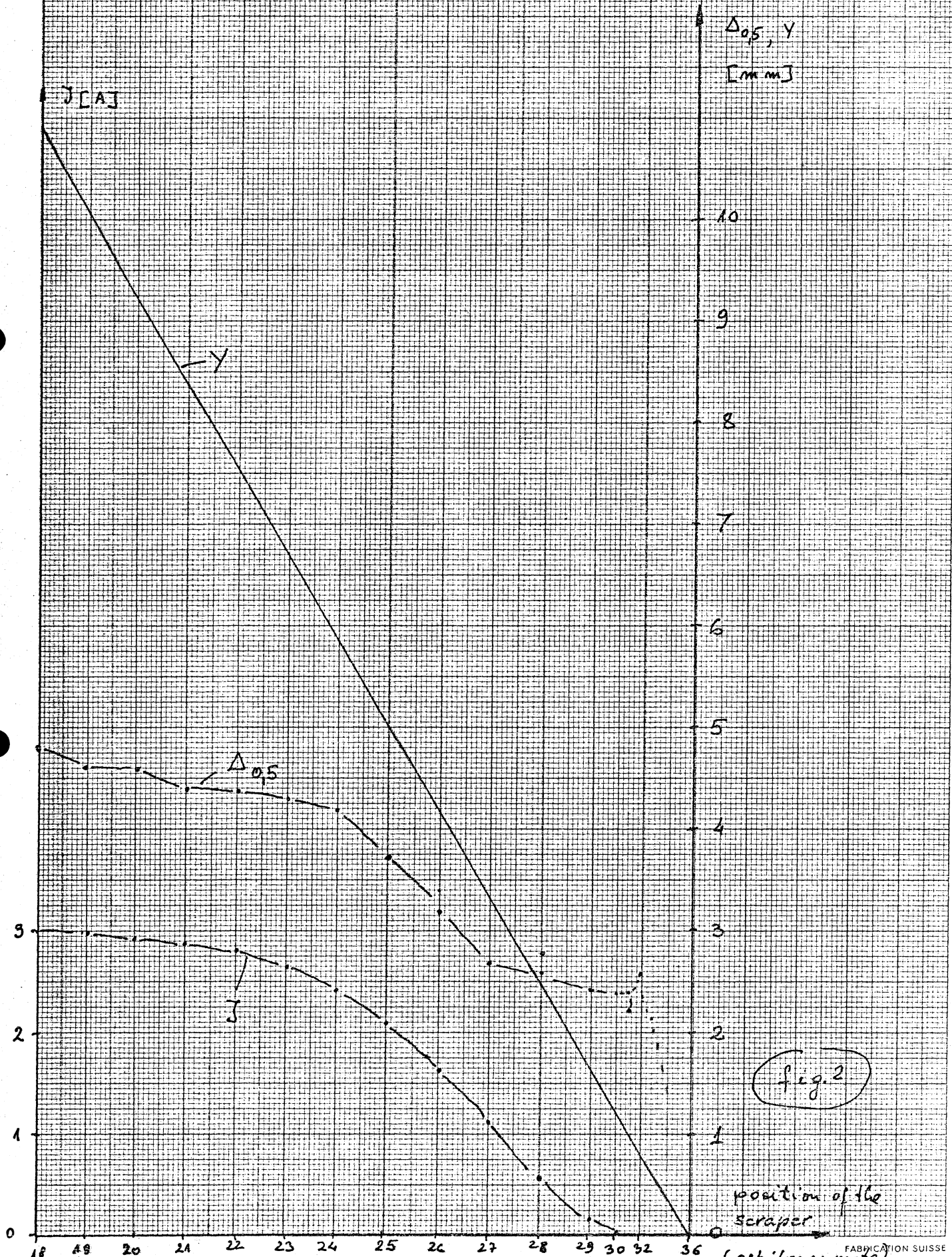


fig. 2

position of the scraper

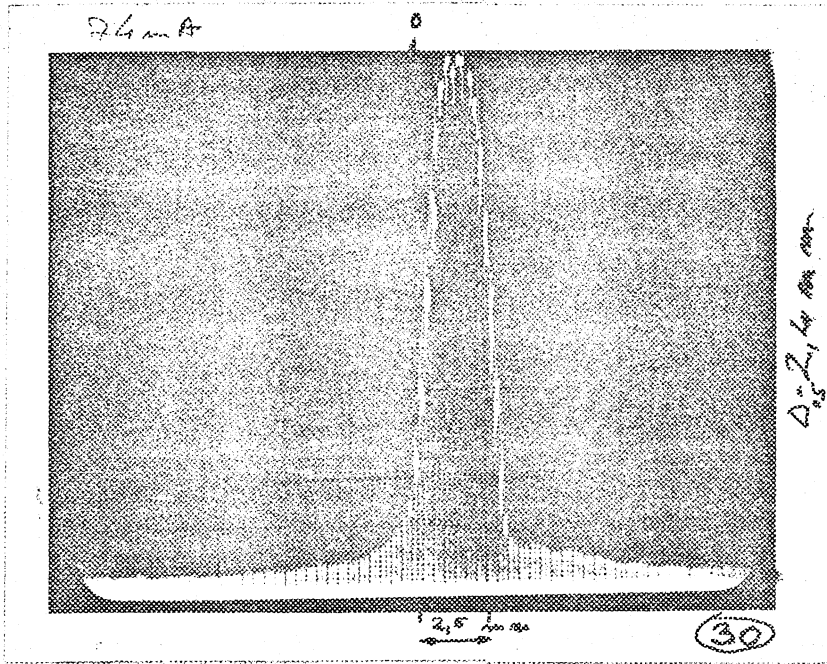


Photo 30

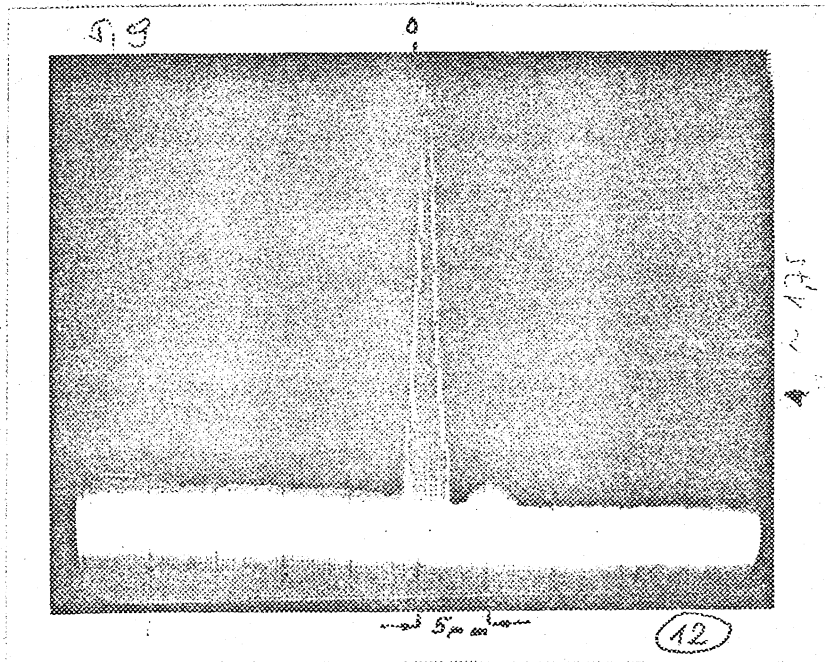


Photo 12