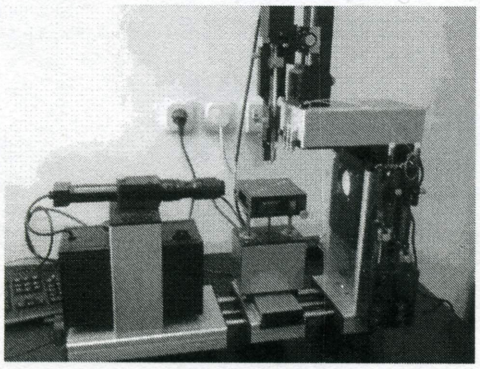

Figure 1: Goniometer Dataphysics' OCA 30

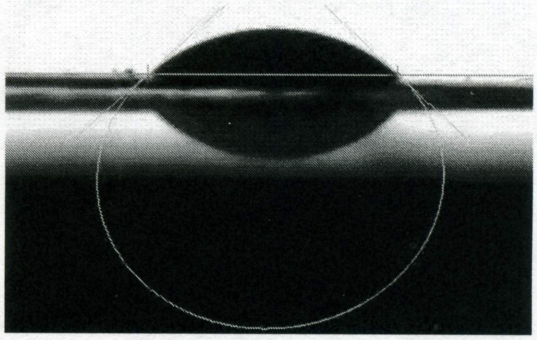

Figure 2: Measurement of the contact angle

developed in equal developer temperature of 22 °C. Two sets of samples were developer in a developing solution with molar concentration of NaOH of 0.2 moldm-3 and one set of CtP samples was developed in commercial developing solution. Seven different times were used for developing process; optimal and six steps, ± 1/15, 1/5, 1/3 from optimal developing time.

3. Results and discussion

It is clearly visible in figure 3 that developing has significant influence on physical-chemical properties of nonprinting areas of the diazo conventional plate. One can see that with the increase of the developing time, the contact angle on the nonprinting areas decreases its value and reaches low point, but by further increase of the developing time the contact angle increases its value again.

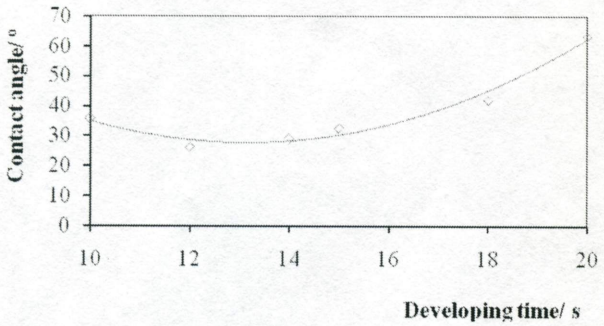

Figure 3: Influence of developing time on the contact angle on nonprinting surfaces of the conventional diazo plate

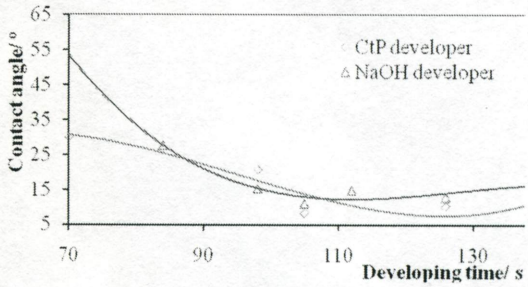

Figure 4: Influence of developing time on the contact angle on nonprinting surfaces of the CtP plate with the CtP and with the NaOH developer

On the other hand, the measurements made with CtP plates shown in figure 4 indicate that both the CtP and NaOH developer react with the plate, dissolving the exposed areas. Both developers show similar behaviour at lower developing time, dissolving of the entire exposed layer is not completed, but with the increase of the developing time, exposed photoactive layer is completely removed. Both of the developing solutions cause similar behaviour of the wetting properties of the nonprinting areas in higher developing times. After reaching low point of contact angle (highest wetting properties), they cause increase of the contact angle. This fact means that, as seen before at conventional plates, developing solutions cause degradation of rough aluminium-