

P G09 PROANTHOCYANIDINS FROM *RIBES NIGRUM* LEAVES
2 TLC ANALYSIS

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We described here a TLC fingerprint of flavan-3ols and oligomeric proanthocyanidins present in black-currant leaves extracts. These products can be separated by silicagel (HP) TLC using single development with the upper phase of the mixture of 2 volumes of acetic acid, 3 volumes of formic acid, 20 volumes of water and 70 volumes of ethyl acetate. The visualization was performed by spraying with vanillin-HCl reagent (1). The flavan-3ols monomers and polymers afford a red colour immediatly on spraying; however after some hours, the spots containing EGC became browner, while those containing GC became violet. The examination of Rf values can also give structural informations. We have noted four trends:

- a) Rf values decrease with increasing polymerisation: monomers (0.8-0.95), dimers (0.4-0.6), trimers (0.15-0.3).
- b) Procyanidins are eluted before prodelphinidins of equivalent constitution.
- c) Dimers with a 4-8 linkage are eluted after their 4-6 isomers.
- d) Rf of epimers on C3 (monomers or dimers) are very similar; HPTLC is necessary for their separation.

These deductions corroborate and complete the first observation on the chromatographic behaviour of flavan-3ols (2).

References

- (1) M.Vanhaelen and R.Vanhaelen-Fastre, *J.Pharmaceut. Biomed. Anal.*,7,1871 (1989)
- (2) L.J.Porter, *Flavans and proanthocyanidins in The Flavonoids Advances in Research since 1980* Ed J.B.Harborne-Chapman and Hall London p53-54 (1988)