



Figure 3. Triphenylacrylonitriles ($X = \text{CN}$) and triphenylethylenes ($X = \text{H}$ or group other than CN).

Table 2 π and σ values for some substituents

Substituents	π^a	σ^a
H	0.0	0.0
OH	-0.67	-0.37
CH_3	0.56	-0.17
OCH_3	-0.02	-0.27
F	0.14	0.06
Cl	0.71	0.23
NH_2	-1.23	-0.66

^a Ref. 10.

only one ring. The equation is significant at 99% level [$F_{5,27}(0.01) = 3.79$], but $\pi.R_2$ parameter is not very significant, as its coefficient is much lower than 95% confidence interval (± 0.437). From this, one can suggest that only rings 1 and 2, with their substituents, are involved in hydrophobic interaction with the receptor.

The negative coefficient of I shows that X other than CN will reduce the activity. This means that probably CN group is involved in some electronic

interaction with the receptor, and that the electronic character of this CN group is influenced through the electron-donation by the substituents in ring 1.

Thus all QSAR studies show that hydrophobic and electronic interactions are involved in PGS inhibition.

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1. Moncada, S. and Vane, J. R., In: *Enzyme inhibitors as drugs*, (ed.) M. Sander, Macmillan Press, London, p. 249.
2. Vane, J. R., *Nature (New Biol.)*, 1971, **231**, 232.
3. Smith, J. B. and Willis, A. L., *Nature (New Biol.)*, 1971, **231**, 235.
4. Ferreira, S. H., Moncada, S. and Vane, J. R., *Nature (New Biol.)*, 1971, **231**, 237.
5. Gund, P. and Jensen, N. P., In: *Quantitative structure-activity relationships of drugs*, (ed.) J. G. Topliss, Academic Press, New York and London, 1983, p. 285.
6. Ceserani, R., Ferrari, M., Goldaniga, G., Moro, E. and Buttinoni, A., *Life Sci.*, 1977, **21**, 223.
7. Van de Berg, G., Bultsma, T. and Nauta, W. T., *Biochem. Pharmacol.*, 1975, **24**, 1115.
8. Dewhirst, F. E., *Prostaglandins*, 1980, **20**, 209.
9. Gilbert, J., Miquel, J. F., Precigoux, G., Hospital, M., Raynaud, J. P., Michel, F. and de Paulet, A. C., *J. Med. Chem.*, 1983, **26**, 693.
10. Hansch, C. and Leo, A. J., *Substituent constants for correlation analysis in chemistry and biology*, John Wiley, New York, 1979.

ANNOUNCEMENT

SYMPOSIUM ON MATHEMATICS (NUMBER THEORY) DEDICATED TO S. RAMANUJAN

A Symposium on Mathematics (Theory of Numbers) dedicated to Dr S. Ramanujan will be held on Thursday 31st December, 1987 at 'Asutosh Bhavan', Calcutta.

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