

No mention of KID work anywhere. RD 474
27.6.1967

DPFH method.

- ① Tarla's spectroscopic evidence that 22 DPFH was a suitable true radical content, but BTC was not for comparative purposes.
- ② Agreed.

Bill Reid reported this in 1966. Spina-Gibson was also active in this field but I am not aware of any recent work.

Method of collection would probably, as I said, be more stable radicals + so heating to 60°C would not be expected to have any effect. ESR method showed a fall off in signal - evidence for decay of radicals (10-15%). The concentration of BTC was measured about one hour after the first cigarette was lit. Why was T.P.M. not measured on tar content - cigarette data?

1966. ESR showed little change in concentration of free spins in condensate. The result of BTC if really free radical/g shows lower radical concentration after filtration, i.e. more filtration for radicals. Can T.P.M.?? I don't follow P.T.C. logic - I do not, g refers to tobacco wt. + so logic reasonable.

T.L.E. ESR indicates that C1100 C15 gives higher f/g than C1100 lamine but f/g of tobacco burnt might be quite different.

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(7) No Composite P10E Exp.

(8) R10E. results show 3 fold increase in f/g
for addition of 8% NaNO_3 to CN102 blend. No work
on white.

NO has an unpaired electron in its normal
(9) state may be considered as a free radical. $\text{O}_2 + \text{O}_2$
are other examples!

(10) No work at P10E on tartrate production by pyrolysis

(11) Slightly less ~~of f/g~~ than f/g as CN102 blend
as cigarette smoke

(12) Temperature of max. radical production agrees with
Ingram's work but ratio of radicals at different
temp. very different.

(13) Ingram's work shows that free radical concentration
depends on % Carbon content. — He might explain this.

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