



Fig. 2 *a*, The somatic chromosomes of *Allium carinatum* stained with quinacrine. The heterochromatic segments appear as intense fluorescent bands. *b*, Same, but stained with Giemsa. The heterochromatic segments appear as dark, deeply stained bands.

all cases there seems to be a close correspondence between the segments strongly stained with Giemsa, and the segments differentiated with quinacrine. There is, however, a very important difference: the Giemsa method does not discriminate between segments with intense and reduced quinacrine fluorescence, but stains both in the same way.

Table 1 Staining Methods with Various Plant Species

Species	Cold treatment	Quinacrine	Giemsa
<i>Vicia faba</i>	+	Intense	+
<i>Allium carinatum</i>	-	Intense	+
<i>Scilla sibirica</i>	+ *	Reduced	+
<i>Tulbaghia alliacea</i>	+	Reduced	+
<i>Tulbaghia verdoornii</i>	+	Reduced	+
<i>Tulbaghia leucantha</i>	+	Reduced	+
<i>Zea mays</i>	-	No differentiation	+

* Positive only after at least 1 month of cold treatment.

In maize preliminary experiments have shown that the knob regions of somatic chromosomes, which are not differentiated satisfactorily with the quinacrine technique, appear as dark stained bands when stained with the Giemsa method. This finding is quite important from the point of view of the study of knob polymorphism, and may provide a quick method for defining the knobs endowment of the various maize races.

Both quinacrine and Giemsa banding seems to be closely associated with the presence of chromocentres in the resting

nuclei. The most interesting finding in our experiments is the complete absence of "centromeric heterochromatin" at least in the species studied. This centromeric heterochromatin seems to be widespread in mammals and in certain Orthoptera (*Vosa*, in preparation).

The Giemsa technique as outlined above needs improvements, but is basically reliable and could be used with success together with the quinacrine method for the study of chromosome polymorphism in plant populations, but with the obvious advantages of using ordinary light microscopy equipment and working on permanent preparations.

CANIO G. VOSA

Botany School,
Oxford

PALMER MARCHI

Istituto Botanico,
Citta Universitaria,
Rome

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Erratum

IN the article by Werner Goebel entitled "Replication of the DNA of the Colicinogenic Factor E_1 (Col E_1) at the Restrictive Temperature in a DNA Replication Mutant Thermosensitive for DNA Polymerase III" (*Nature New Biology*, **237**, 67; 1972), the summary box at the beginning should read as follows: "Evidence is presented that polymerase III is essential for the replication of several sex factors but not of the plasmid Col E_1 . A possible involvement of polymerase I in the replication of Col E_1 DNA is suggested by the data".

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