are with the *D* ring. There are no intermolecular contacts between the bromophenol molecules and the *C* rings of steroid molecules.

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Lattice parameters and space groups of two stilbene substituents.

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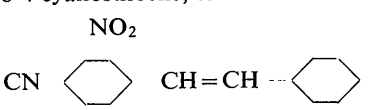
Crystals of 2-nitro-4-cyanostilbene, $C_{15}H_{10}N_2O_2$, are orthorhombic, space group either *Pnam* or $Pna2_1$, with 8 molecules in a unit cell of dimensions $a=13{\cdot}84$, $b=7{\cdot}20$, $c=24{\cdot}88$ Å. 2-Nitro-4-cyano-4′-methoxystilbene, $C_{16}H_{12}N_2O_3$, has been crystallized in two forms, one yellow-green and the other orange. The orange crystals are triclinic, with 2 molecules in a unit cell of dimensions $a=8{\cdot}38$, $b=13{\cdot}06$, $c=7{\cdot}25$ Å, $\alpha=97°30'$, $\beta=108°$, $\gamma=71°$.

The compounds 2-nitro-4-cyanostilbene and 2-nitro-4-cyano-4′-methoxystilbene are interesting organic scintillating and conducting materials (Georgescu & Giusca, 1966). The two stilbene substituents were synthesized by condensation of 3-nitro-4-methylbenzonitrile with benzaldehyde and 3-nitro-4-methoxybenzaldehyde in the presence of piperidine as a catalyst, at a temperature of about 140°C (Ullmann & Gschwind, 1908). A few good crystals were obtained by repeated crystallization in absolute ethanol.

X-ray single-crystal and powder diffraction techniques were used, with Ni-filtered Cu radiation, to determine the cell parameters.

(1) 2-Nitro-4-cyanostilbene, structural formula

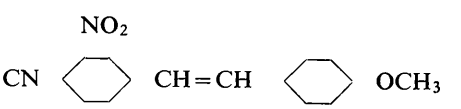


The crystals are thin tablets (001) of a yellow-green colour, and twinning along the *c* axis is frequently observed. A few monocrystals were selected for single-crystal measurements. From rotation and Weissenberg photographs, the crystals were found to be orthorhombic with the unit-cell parameters:

$a=13{\cdot}841\pm8$, $b=7{\cdot}199\pm6$,
$c=24{\cdot}882\pm30$ (three standard deviations) Å;
$V=2480\pm6$ Å^3;
$Z=8$, $D_m=1{\cdot}26\pm0{\cdot}02$ g.cm^{-3}
and $D_x=1{\cdot}34$ g.cm^{-3}.

The systematic extinctions: reflexions $0kl$ present for $k+1=2n$; reflexions $h0l$ present for $h=2n$, lead to space group $Pna2_1$ or *Pnam*.

(2) 2-Nitro-4-cyano-4′-methoxy stilbene, structural formula



This compound shows two kinds of crystals having yellow-green and orange colour respectively. The powder diffraction data clearly confirm the existence of two structural isomers. The single-crystal study was carried out only on the orange type of crystals. The unit cell is triclinic with:

$a=8{\cdot}377\pm13$,
$b=13{\cdot}065\pm30$ (two standard deviations),
$c=7{\cdot}246\pm10$ Å,
$\gamma=71°14'\pm30'$.
$\alpha=97°30'\pm2°$,
$\beta=108°\pm30'$,
$V=702\pm4$ Å^3;
$Z=2$
and $D_x=1{\cdot}28$ g.cm^{-3}.

Possible space groups are $P1$ or $P\bar{1}$. The value of the β angle is consistent with that obtained by measurement on the optical goniometer.

No further work on these compounds is contemplated at present.

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