Slit sizes and positions tested for optimization of spectrophotofluorometer resolution, sensitivity and primary scattering

Group	Slit position 1[a] Activation Monochromator	2[a] Cell	3[b] Cell	4[b] Cell	5[a] Cell	6[a] Emission Monochromator	7[c] Detector
I-A	1.0	0.5	1.0	1.0	0.5	1.0	5.0
B	1.0	0.5	3.0	3.0	0.5	1.0	5.0
C	1.0	0.5	5.0	5.0	0.5	1.0	5.0
II-A	2.0	1.0	1.0	1.0	1.0	2.0	5.0
B	2.0	1.0	3.0	3.0	1.0	2.0	5.0
C	2.0	1.0	5.0	5.0	1.0	2.0	5.0
III-A	3.0	2.0	1.0	1.0	2.0	3.0	5.0
B	3.0	2.0	3.0	3.0	2.0	3.0	5.0
C	3.0	2.0	5.0	5.0	2.0	3.0	5.0
IV-A	4.0	3.0	1.0	1.0	3.0	4.0	5.0
B	4.0	3.0	3.0	3.0	3.0	4.0	5.0
C	4.0	3.0	5.0	5.0	3.0	4.0	5.0
V-A	5.0	4.0	1.0	1.0	4.0	5.0	5.0
B	5.0	4.0	3.0	3.0	4.0	5.0	5.0
C	5.0	4.0	5.0	5.0	4.0	5.0	5.0
VI-A	5.0	4.0	3.0	3.0	4.0	5.0	5.0
B	5.0	4.0	3.0	3.0	4.0	5.0	3.0
C	5.0	4.0	3.0	3.0	4.0	5.0	1.0

Slit sizes in mm.
Principal functions: [a] Resolution and sensitivity; [b] scattering; [c] scattering and sensitivity.

Some investigators have reported the use of specific combinations of slit sizes and positions for individual fluorometric measurements; however, their effectiveness has not always been proven with published data. For the analysis of serotonin by BOGDANSKI et al.'s method[7], WISE[8] has used American Instrument Co. slit arrangement No. 5 (which is similar to that reported here) with the exception that a single polarizer was placed in position 4, whereas GLICK et al.[9] used slit arrangement No. 3. MAICKEL et al.[3] reported using slit sizes 3.0 mm in positions 1–6 and 1.0 mm in position 7 for analysis of serotonin-O.P.T.; however, this combination was apparently selected arbitrarily.

The slit sizes and positions selected here represent a trade-off between instrumental resolution, sensitivity and primary scattering. As can be seen, a compromise was needed, but the combination selected appears optimal from the standpoints of greatest instrumental resolution and sensitivity in the fluorometric measurement of the serotonin-O.P.T. complex[10].

Résumé. Une sélection des dimensions et des arrangements optimaux des fentes a été étudiée pour l'évaluation du complexe sérotonine-O.P.T. (*o*-phthaldialdéhyde) au moyen du spectrophotofluorimètre Aminco-Bowman. Les meilleures conditions ont été réalisées avec les dimensions de 5.0, 4.0, 5.0, 5.0, 4.0, 5.0 et 5.0 mm dans les positions 1–7 respectivement.

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[7] D. F. BOGDANSKI, A. PLETSCHER, B. B. BRODIE and S. UDENFRIEND, J. Pharmac. exp. Ther. *117*, 82 (1956).
[8] C. D. WISE, Analyt. Biochem. *18*, 94 (1967).
[9] D. GLICK, D. VON REDLICH and B. DIAMANT, Biochem. Pharmac. *16*, 553 (1967).
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CONGRESSUS

Israel

2nd International Symposium on Animal and Plant Toxins

in Tel Aviv 22 February – 1 March 1970

Under the auspices of the International Society of Toxicology and the Tel Aviv University the Symposium will be held in the Tel Aviv Hilton Hotel.
Correspondence for further information to be addressed to: Planning Committee, 2nd International Symposium on Animal and Plant Toxins, P.O.B. 16271, Tel Aviv (Israel).

France

La 21ème réunion annuelle de la Société de Chimie physique aura lieu

à Paris du 22 au 25 Septembre 1970.

Elle sera consacrée à une discussion sur le sujet de l'Etat de Transition réactionels: modèles généraux, systèmes hydrocarbonés.
Pour tous renseignements, s'adresser au Secrétariat Général de la Société de Chimie physique, 10, rue Vauquelin, F-75 Paris 5e (France).

CORRIGENDUM

J. W. Parker, Joan Steiner, Andrea Coffin, R. J. Lukes, Kathleen Burr and Laura Brilliantine: *Blastomitogenic Agents in Leguminosae and Other Families*, Experientia *25*, fasc. 2, p. 187 (1969). Because of an inadvertent reversal of code numbers the extract of *Trixis californica* which was reported as showing 38.6% transformation, was actually from a *Phaseolus* species. The *Trixis californica* seeds have subsequently been tested for activity and have produced no significant transformation.