Final Report

Heterocycles as Laser Dyes

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- Heterocycles, laser dyes, pyrromethene-BF2 complexes,
- Nitrobenzotriazolobenzotriazoles

**Abstract:**

See attached
Heterocycles as Laser Dyes: Final Report

Laser activity from pyromethene–BF$_2$ complexes and nitro derivatives of benzotriazolo[2,1-$a$]benzotriazole was discovered and reported.

Certain pyromethene–BF$_2$ dyes were superior to rhodamine–6G and thereby became the most power efficient laser dyes known. The results were described in Technical Reports 1, 2, and 4.

Fluorescence was enhanced and laser activity introduced by substitution in benzotriazolo[2,1-$a$]benzotriazole to give certain nitro derivatives. The results were described in Technical Report 3.

Technical Reports

1. Laser Action from 2,6,8-trisubstituted-1,3,5,7-tetramethyl-pyromethene–BF$_2$ complexes: part 2
2. Pyromethene–BF$_2$ Complexes as Laser Dyes: 2
4. Laser Dye Spectroscopy of Some Pyromethene–BF$_2$ Complexes


Technical Reports 2, 3, 4 have been accepted for publication:


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