



PO Box 31126  
Dayton, OH 45437  
Tel: 937.252.2989 Fax: 937.258.3937  
E-mail: info@exciton.com  
www.exciton.com

## IR 26

**Synonym:** 4-(7-(2-phenyl-4H-1-benzothiopyran-4-ylidene)-4-chloro-3,5-trimethylene-1,3,5-heptatrienyl)-2-phenyl-1-benzothiopyrylium perchlorate; Dye 26

**Catalog No.:** 11930

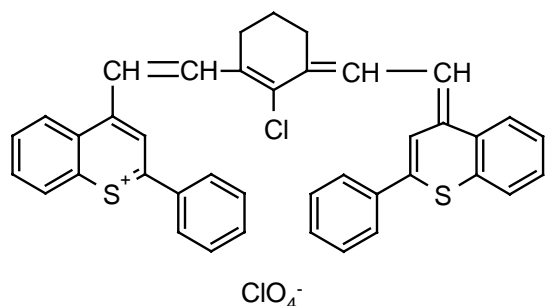
**CAS No.:** 76871-75-5

**MW:** 709.70

**Chemical Formula:** C<sub>40</sub>H<sub>30</sub>Cl<sub>2</sub>O<sub>4</sub>S<sub>2</sub>

**Appearance:** Black powder

**Structure:**



| Lasing Wavelength<br>Max.<br>(nm) | Range<br>(nm) | Pump Source<br>(nm)                          | Solvent | Concentration<br>(molar) | Abs<br>λ-max         | FI<br>λ-max          |
|-----------------------------------|---------------|--|---------|--------------------------|----------------------|----------------------|
| 1190                              | 1150-1240     | Nd:YAG(1064,m-l,<br>21ps) <sup>184,185</sup> | DCE     |                          | 1.08 <sup>dce</sup>  | 1.14 <sup>dce</sup>  |
| 1280                              | 1200-1320     | Nd:YAG(1064,cw,<br>m-l,) <sup>186</sup>      | BzOH*   | 1 x 10 <sup>-3</sup>     | 1.09 <sup>bzoh</sup> | 1.17 <sup>bzoh</sup> |

\*Dye 26 as heptafluorobutyrate salt to achieve proper solubility.

BzOH = benzyl alcohol; Dce = 1,2-dichloroethane;

### REFERENCES:

184. A New Infrared Laser Dye of Superior Photostability Tunable to 1.24μm with Picosecond Excitation, W. Kranitzky, B. Kopainsky, W. Kaiser, K.H. Drexhage and G.A. Reynolds, *Optics Commun.*, 36(2), 149 (1981)
185. Lifetime, Photostability, and Chemical Structure of IR Heptomethine Cyanine Dyes Absorbing Beyond 1μm, B. Kopainsky, P. Qiu, W. Kaiser, B. Sens and K.H. Drexhage, *Appl. Phys. B*, 29, 15 (1982)
186. Tunable Picosecond Pulses Around 1.3μm Generated by a Synchronously Pumped Infrared Dye Laser, A. Seilmeier, W. Kaiser, B. Sens and K.H. Drexhage, *Optics Lett.*, 8(4), 205 (1983)

For a current list of biology, biological stain, or biochemistry references for IR 26 from PubMed, click on the following link:

[IR26](#) (zero references to this dye in PubMed as of May 2006)