

## 2-Bromo-3,3,3-trifluoropropene (abb. BTFB)

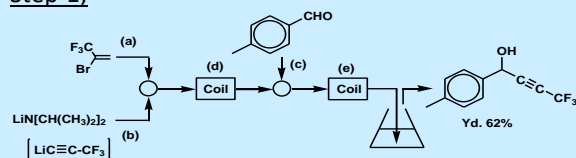
2-ブロモ-3,3,3-トリフルオロプロペン



Purity	98%
CAS Number	1514-82-5
Molecular Formula	C <sub>3</sub> H <sub>2</sub> BrF <sub>3</sub>
Molecular Weight	174.95

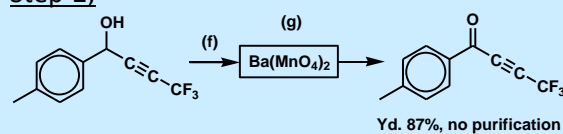
COX-2 阻害作用を持つ抗炎症剤 Celecoxib の新規高速連続流通管方式の新たな Click 反応合成ルートを検討。トータルの滞留時間は 1hr 以下、面倒な精製操作を必要としない、over all 収率 59% と従来の 48%より向上を認めた。

### Step-1;



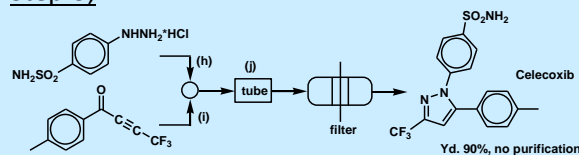
(a) 0.4ml/min, THF (0.13M), (b) 2eq, THF (0.26M), (c) 1eq, THF (0.13M), (d) Coil Reactor-1; -78°C, 1ml, (e) Coil Reactor-2; -78°C, 5ml

### Step-2;



(f) 0.1ml/min, DMC (0.2M), (g) Packed Reactor, 50°C

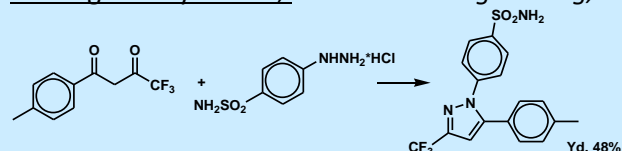
### Step-3;



(h) 0.1ml/min, EtOH 3/H<sub>2</sub>O 1 (0.1M), (i) 0.1ml/min, EtOH (0.1M), (j) Coil Reactor-3; 10ml, 100°C, (k) Filtrate

*J. Flow Chem., 2022, 12, p147-151*

Existing flow synthesis; React Chem. Engineering, 2016, 1, p101-105



### Properties:

Appearance	Liquid gas
Boiling point, °C	34-35