

## 1.1 MICRO REACTORS

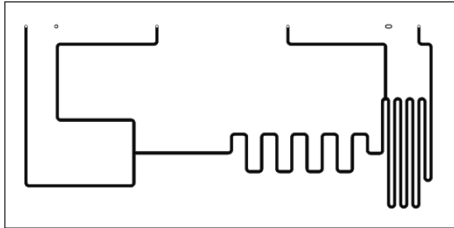
A standard set of 5 micro reactors is provided with the system. The micro reactors differ in volume and number of connections. The micro reactors are made of glass and inert to common organic chemicals except HF.

### 1.1.1 T-MIXER REACTORS

Below are the standard T-mixer reactors.

#### Design 3021

Reactor with three inlets and one outlet:  $A+B=P1+Q=P$

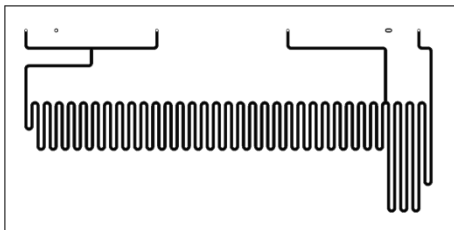


- Width channel: 300  $\mu\text{m}$
- Depth channel: 60  $\mu\text{m}$
- Reactor Volume: 1  $\mu\text{l}$
- Quench Volume: 1.5  $\mu\text{l}$

Figure 1: Micro reactor design 3021

#### Design 3022

Reactor with three inlets and one outlet:  $A+B=P1+Q=P$

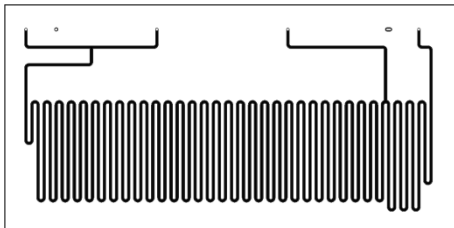


- Width channel: 300  $\mu\text{m}$
- Depth channel: 60  $\mu\text{m}$
- Reactor Volume: 5  $\mu\text{l}$
- Quench Volume: 1.5  $\mu\text{l}$

Figure 2: Micro reactor design 3022

#### Design 3023

Reactor with three inlets and one outlet:  $A+B=P1+Q=P$

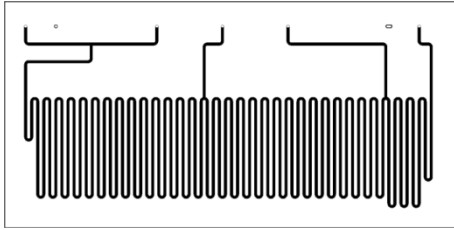


- Width channel: 300  $\mu\text{m}$
- Depth channel: 60  $\mu\text{m}$
- Reactor Volume: 10  $\mu\text{l}$
- Quench Volume: 1.5  $\mu\text{l}$

Figure 3: Micro reactor design 3023

### Design 3024

Reactor with four inlets and one outlet:  $A+B=P1+C=P2+Q=P$

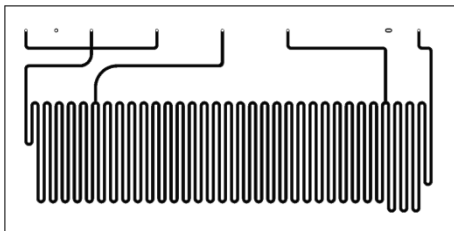


- Width channel: 300  $\mu\text{m}$
- Depth channel: 60  $\mu\text{m}$
- Reactor Volume: 10  $\mu\text{l}$  (= 5 + 5  $\mu\text{l}$ )
- Quench Volume: 1.5  $\mu\text{l}$

Figure 4: Micro reactor design 3024

### Design 3025

Reactor with five inlets and one outlet:  $A+B+C=P1+D=P2+Q=P$

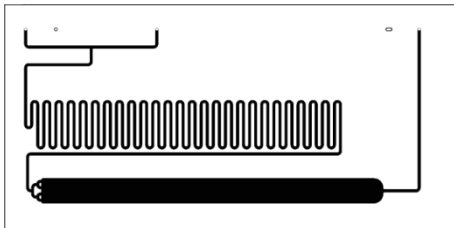


- Width channel: 300  $\mu\text{m}$
- Depth channel: 60  $\mu\text{m}$
- Reactor Volume: 10  $\mu\text{l}$  (= 2 + 8  $\mu\text{l}$ )
- Quench Volume: 1.5  $\mu\text{l}$

Figure 5: Micro reactor design 3025

### Design 3026

Catalyst reactor with two inlets and one outlet:  $A+B=P1+C=P$



- Width channel: 300  $\mu\text{m}$
- Depth channel: 60  $\mu\text{m}$
- Reactor Volume: 5  $\mu\text{l}$
- Catalyst Volume: 37  $\mu\text{l}$

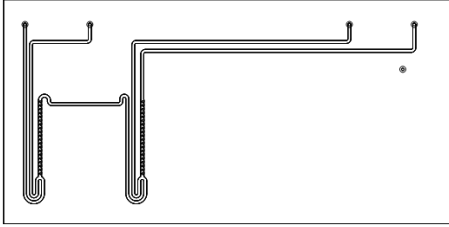
Figure 6: Micro reactor design 3026

### 1.1.2 SOR-MIXER REACTORS

Below are the standard SOR-mixer reactors.

#### Design 3221

Reactor with three inlets and one outlet:  $A+B=P1+Q=P$

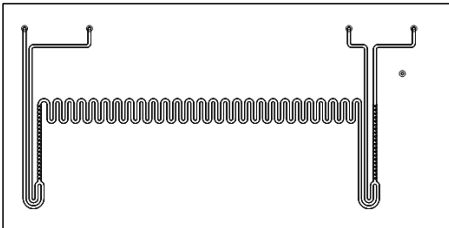


- Width channel: 300  $\mu\text{m}$
- Depth channel: 120  $\mu\text{m}$
- Reactor Volume: 1  $\mu\text{l}$

Figure 7: Micro reactor design 3221

#### Design 3222

Reactor with three inlets and one outlet:  $A+B=P1+Q=P$

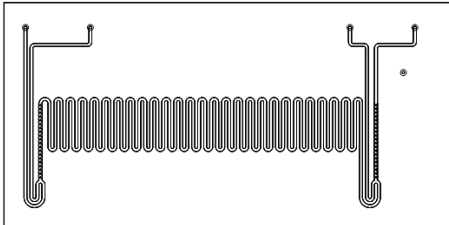


- Width channel: 300  $\mu\text{m}$
- Depth channel: 120  $\mu\text{m}$
- Reactor Volume: 5  $\mu\text{l}$

Figure 8: Micro reactor design 3222

#### Design 3223

Reactor with three inlets and one outlet:  $A+B=P1+Q=P$

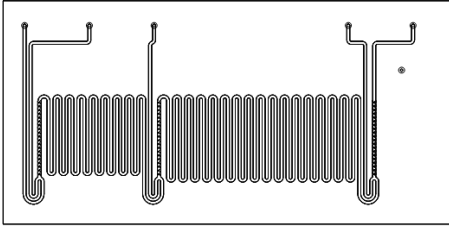


- Width channel: 300  $\mu\text{m}$
- Depth channel: 120  $\mu\text{m}$
- Reactor Volume: 10  $\mu\text{l}$

Figure 9: Micro reactor design 3223

### Design 3224

Reactor with four inlets and one outlet:  $A+B=P1+C=P2+Q=P$

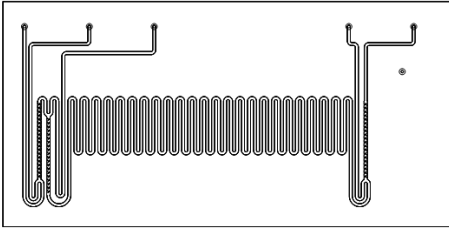


- Width channel: 300  $\mu\text{m}$
- Depth channel: 120  $\mu\text{m}$
- Reactor Volume: 15  $\mu\text{l}$  (= 5 + 10  $\mu\text{l}$ )

Figure 10: Micro reactor design 3224

### Design 3225

Reactor with four inlets and one outlet:  $A+B+C=P1+Q=P$

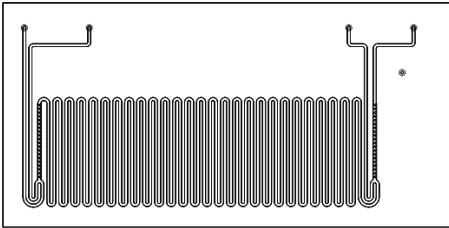


- Width channel: 300  $\mu\text{m}$
- Depth channel: 120  $\mu\text{m}$
- Reactor Volume: 10  $\mu\text{l}$

Figure 11: Micro reactor design 3225

### Design 3227

Reactor with three inlets and one outlet:  $A+B=P1+Q=P$



- Width channel: 300  $\mu\text{m}$
- Depth channel: 120  $\mu\text{m}$
- Reactor Volume: 19.5  $\mu\text{l}$

Figure 12: Micro reactor design 3227