A

$\dot{q}_{CO_2}$: K5 — K7 — K8 (exp.) — K5 — K7 — K8 (sim.)

$\dot{q}_{CO_2}$: K9 — K10 — K11 (exp.) — K9 — K10 — K11 (sim.)

CO$_2$-flux $\dot{q}_{CO_2}$ [g/h]

cultivation time $t$ [h]

B

Cu$^{2+}$-concentration [mg/L]

- before separation
- after 1st. separation
- after 2nd. separation

K7: 0.294
K8: 0.464
K11: 0.059