## ASSOCIATED CONTENT

## Supporting Information

Equations used for calculation of yield and productivity for single batch PC processes

$$
\begin{array}{ll}
\operatorname{Pr}=\frac{\left(m_{\text {pr }} * \mathrm{Pu}\right)-\mathrm{m}_{\text {seed }}}{\mathrm{V}_{\text {cryst }} * \mathrm{t}_{\text {exp }}} & \mathrm{S} 1 \\
\mathrm{Y}=\frac{\left(\mathrm{m}_{\text {pr }} * \mathrm{Pu}\right)-\mathrm{m}_{\text {seed }}}{\mathrm{m}_{\text {theo }} * 0.5} & \text { S2 }
\end{array}
$$

Equation used for calculation of yield and productivity for CPCD process

## Crystallization tank

$$
\operatorname{Pr}=\frac{\left(\mathrm{m}_{\mathrm{pr}} * \mathrm{Pu}\right)-\mathrm{m}_{\text {seed }}}{\mathrm{V}_{\text {cryst }} * \mathrm{t}_{\text {exp }}}
$$

$$
\begin{equation*}
\mathrm{Y}=\frac{\left(\mathrm{m}_{\mathrm{pr}} * \mathrm{Pu}\right)-\mathrm{m}_{\text {seed }}}{\left(\mathrm{m}_{\text {theo }} * 0.5\right)+\left(\mathrm{m}_{\text {solid excess }} * 0.5\right)} \tag{S4}
\end{equation*}
$$

## Dissolution tank

$$
\begin{align*}
& \operatorname{Pr}=\frac{\left(\mathrm{m}_{\mathrm{pr}} * \mathrm{Pu}\right)}{\mathrm{V}_{\text {cryst }} * \mathrm{t}_{\text {exp }}}  \tag{S5}\\
& \mathrm{Y}=\frac{\left(\mathrm{m}_{\mathrm{pr}} * \mathrm{Pu}\right)}{\mathrm{m}_{\text {solid excess }} * 0.5} \tag{S6}
\end{align*}
$$

