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## NOMENCLATURE

| | |
|---|---|
| CHP | Combined heat and power |
| $c_P$ | specific heat, J. $kg^{-1}$. $K^{-1}$ |
| LHV | Lower heating value, J.$kg^{-1}$ |
| $\dot{m}$ | Mass flow rate, kg. $s^{-1}$ |
| $\dot{Q}$ | Thermal output, W |
| T | Temperature, K |
| y | Mass fraction |

### Greek symbols

| | |
|---|---|
| β | Exhaust gas mass flow rate-to-biomass mass flow rate ratio |

### Subscripts

| | |
|---|---|
| 0 | Section of wet biomass |
| 1 | Enter section of exhaust gases |
| 2 | Exit section of exhaust gases |
| 3 | Section of dried biomass |
| Atm | Atmospheric, bar |
| B | Biomass |
| C | Engine cooling water |
| F | Exhaust gases |
| $H_2O$ | Water |
| k | k-component |
| IN | Inlet |
| INO | Inorganic |
| OM | Organic Matter |
| OUT | Outlet |
| S | Secondary circuit |
| SH | Shell and tube exchanger |
| SYN | Syngas |