

## Component Type: *atis* **CatalyticComponents**

(*Component type* is part of the metatheory and describes configurations and properties that characterize a particular component.)

**Catalytic components**,  $\mathcal{C}(\mathfrak{S})$ , =<sub>df</sub> system components that are required for derived production output that are not part of the output.

$$\mathcal{C}(\mathfrak{S}) =_{df} \mathfrak{W} \mid \mathfrak{W} \subset \mathfrak{S}_0 \supset [\exists_{DP^f_T} (\mathbf{x} \in \mathfrak{W} \supset \exists_{DP^f_T} \mathfrak{S}_{O_P}(\mathbf{x}) \notin O_P)];$$

where ‘ $\mathfrak{S}_{O_P}$ ’ is the deprived production output process.

**Catalytic components** comprising a set; such that, the set is a subset of the object-set implies that if there is derived production output and a component is an element of the subset, then there is a derived production output process such that the component is not in the output.