1°. Consider the function $\alpha' \in \mathscr{F}(B)^{\mathscr{T}A}$ defined by the formula (for every $X \in \mathscr{T}A$)

$$\alpha' X = \bigsqcup \langle \alpha \rangle^* \operatorname{atoms} \uparrow X.$$

Obviously $\alpha' \bot^{\mathscr{T}A} = \bot^{\mathscr{F}(B)}$. For every $I, J \in \mathscr{T}A$

$$\begin{aligned}
&\alpha'(I \sqcup J) = \\
&\bigsqcup \langle \alpha \rangle^* \operatorname{atoms} \uparrow (I \sqcup J) = \\
&\bigsqcup \langle \alpha \rangle^* (\operatorname{atoms} \uparrow \cup \operatorname{atoms} \uparrow J) = \\
&\bigsqcup (\langle \alpha \rangle^* \operatorname{atoms} \uparrow I \cup \langle \alpha \rangle^* \operatorname{atoms} \uparrow J) = \\
&\bigsqcup \langle \alpha \rangle^* \operatorname{atoms} \uparrow I \sqcup \bigsqcup \langle \alpha \rangle^* \operatorname{atoms} \uparrow J = \\
&\alpha' I \sqcup \alpha' J.
\end{aligned}$$

Let continue α' till a funcoid f (by the theorem 828): $\langle f \rangle \mathcal{X} = \bigsqcap \langle \alpha' \rangle^* \operatorname{up} \mathcal{X}$. Let's prove the reverse of (10):

$$\begin{aligned}
&\bigsqcap \left\langle \bigsqcup \circ \langle \alpha \rangle^* \circ \operatorname{atoms} \circ \uparrow \right\rangle^* \operatorname{up} a = \\
&\bigsqcap \left\langle \bigsqcup \circ \langle \alpha \rangle^* \right\rangle^* \langle \operatorname{atoms} \rangle^* \langle \uparrow \rangle^* \operatorname{up} a \sqsubseteq \\
&\bigsqcap \left\langle \bigsqcup \circ \langle \alpha \rangle^* \right\rangle^* \{\{a\}\} = \\
&\bigsqcap \left\{ \left(\bigsqcup \circ \langle \alpha \rangle^* \right) \{a\} \right\} = \\
&\bigsqcap \left\{ \bigsqcup \langle \alpha \rangle^* \{a\} \right\} = \\
&\bigsqcap \left\{ \bigsqcup \{\alpha a\} \right\} = \\
&\bigsqcap \{\alpha a\} = \\
&\alpha a.
\end{aligned}$$

Finally,

$$\alpha a = \bigsqcap \left\langle \bigsqcup \circ \langle \alpha \rangle^* \circ \operatorname{atoms} \circ \uparrow \right\rangle^* \operatorname{up} a = \bigsqcap \langle \alpha' \rangle^* \operatorname{up} a = \langle f \rangle a,$$

so $\langle f \rangle$ is a continuation of α.

2°. Consider the relation $\delta' \in \mathscr{P}(\mathscr{T}A \times \mathscr{T}B)$ defined by the formula (for every $X \in \mathscr{T}A$, $Y \in \mathscr{T}B$)

$$X \; \delta' \; Y \Leftrightarrow \exists x \in \operatorname{atoms} \uparrow X, y \in \operatorname{atoms} \uparrow Y : x \; \delta \; y.$$

Obviously $\neg(X \; \delta' \; \bot^{\mathscr{F}(B)})$ and $\neg(\bot^{\mathscr{F}(A)} \; \delta' \; Y)$.

For suitable I and J we have:

$$\begin{aligned}
&I \sqcup J \; \delta' \; Y \Leftrightarrow \\
&\exists x \in \operatorname{atoms} \uparrow (I \sqcup J), y \in \operatorname{atoms} \uparrow Y : x \; \delta \; y \Leftrightarrow \\
&\exists x \in \operatorname{atoms} \uparrow I \cup \operatorname{atoms} \uparrow J, y \in \operatorname{atoms} \uparrow Y : x \; \delta \; y \Leftrightarrow \\
&\exists x \in \operatorname{atoms} \uparrow I, y \in \operatorname{atoms} \uparrow Y : x \; \delta \; y \vee \exists x \in \operatorname{atoms} \uparrow J, y \in \operatorname{atoms} \uparrow Y : x \; \delta \; y \Leftrightarrow \\
&I \; \delta' \; Y \vee J \; \delta' \; Y;
\end{aligned}$$

similarly $X \; \delta' \; I \sqcup J \Leftrightarrow X \; \delta' \; I \vee X \; \delta' \; J$ for suitable I and J. Let's continue δ' till a funcoid f (by the theorem 828):

$$\mathcal{X} \; [f] \; \mathcal{Y} \Leftrightarrow \forall X \in \operatorname{up} \mathcal{X}, Y \in \operatorname{up} \mathcal{Y} : X \; \delta' \; Y.$$