However, the paper itself is written somewhat carelessly. I was not able to understand the derivation of the formula (5), which gives the main result of the paper.

I suggest to make the following change (blue color) of the text and to rearrange members of Eq. (3) so that the correspondence between them and the newly inserted text is clearly visible.

Let $\boldsymbol{\xi} = \boldsymbol{\xi}(t)$ be a point upon the evaporation front at time t; $\boldsymbol{\xi} \in \gamma_t$. Let δt be an elementary time step and δS an elementary surface surrounding the point $\boldsymbol{\xi}$, $\delta S \subset \gamma_t$. Denote by $\boldsymbol{\nu}(t, \boldsymbol{\xi})$ the unit normal vector to γ_t at point $\boldsymbol{\xi}$, oriented out of the wet zone, and by δs the distance between the positions γ_t and $\gamma_{t+\delta t}$ at $\boldsymbol{\xi}$. Then the flow and transport of water coming to the elementary surface δS from the wet zone, $\rho\, \boldsymbol{w} + \boldsymbol{b}^w + c^w\, \boldsymbol{v}^v$, pushes the front towards the dry zone, and the transport of water out of δS into the dry zone, $\boldsymbol{b}^d + c^d\, \boldsymbol{v}^d$, pushes the front towards the wet zone. The excess of water coming to δS during the time interval δt, $(\rho\, \boldsymbol{w} + \boldsymbol{b}^w + c^w\, \boldsymbol{v}^w - \boldsymbol{b}^d - c^d\, \boldsymbol{v}^d, \boldsymbol{\nu})$, is compensated by the mass of water $\delta s\, \delta S(\rho\, \theta + c^w(n - \theta) - n\, c^d)$ shifting the surface δS to its new position distant by δs in the direction $\boldsymbol{\nu}$. Here and in the sequel, $(\boldsymbol{u}, \boldsymbol{v})$, where $\boldsymbol{u}, \boldsymbol{v}$ are two vectors, denotes the scalar product. This account gives the balance equation

$$\begin{aligned} \delta S\, \delta t\big(\rho\, \boldsymbol{w}(t, \boldsymbol{\xi}) + \boldsymbol{b}^w(t, \boldsymbol{\xi}) + c^w(t, \boldsymbol{\xi})\, \boldsymbol{v}^w(t, \boldsymbol{\xi}) - \boldsymbol{b}^d(t, \boldsymbol{\xi}) - c^d(t, \boldsymbol{\xi})\, \boldsymbol{v}^d(t, \boldsymbol{\xi}), \boldsymbol{\nu}(t, \boldsymbol{\xi})\big) \\ = \delta S\, \delta s\big(\theta(t, \boldsymbol{\xi})\, \rho + (n - \theta(t, \boldsymbol{\xi}))c^w(t, \boldsymbol{\xi}) - n\, c^d(t, \boldsymbol{\xi})\big) \end{aligned} \tag{3}$$

It is not necessary to make any changes in s Eqs. (4), (5) and (6), I only suggest to remove the superfluous brackets.

I believe that Eq. (5) does not require any further comment, since it was derived from Eq. (3) which is now explained in the blue colored lines.

What do the designations n and _theta mean?

I suggest not to use the symbol _theta (water content) in line 87, and to introduce and define it in line 92.

I suggest to introduce and define the symbol n (porosity) in the sentence "Denote by ...", line 120.

What is in parenthesis? Scalar product with normal?

Yes, it is the scalar product. The notation is now explained in suggested blue colored text above.