



Corrigendum to

“Technical note: Fundamental aspects of ice nucleation via pore condensation and freezing including Laplace pressure and growth into macroscopic ice” published in *Atmos. Chem. Phys.*, 20, 3209–3230, 2020

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Equation (5) of the paper relates the filling level D_p of a conical pore to the radius of the meniscus for a set contact angle θ_{ws} . This equation lacks the dependence on the pore opening angle δ , which becomes important for larger opening angles. Including the opening angle, this equation reads as

$$D_p = -2r_m(T)\cos(\theta_{ws} + \delta). \quad (5)$$

Also in Sect. 5.1, the equations for capillary condensation in conical and wedge-shaped pores do not include the opening angle. These equations including the opening angle read as

$$D_p(T) = \frac{-4\gamma_{vi}(T) v_i(T, P_0) \cos(\theta_{is}(T) + \delta)}{kT \ln \frac{p}{p_i(T, P_0)}} \quad (27)$$

and

$$D_1(T) = \frac{-2\gamma_{vi}(T) v_i(T, P_0) \cos(\theta_{is}(T) + \delta)}{kT \ln \frac{p}{p_i(T, P_0)}}. \quad (28)$$

See the updated Fig. 2 for the definition of δ .

Moreover, there is an error in Eq. (A4). In its corrected form, it reads as

$$\begin{aligned} \kappa \partial(T) / \partial P &= -0.0003805 + 6.639 \times 10^{-6} \\ &\cdot (T - 273.15) - 9.688 \times 10^{-8} \cdot (T - 273.15)^2. \end{aligned} \quad (A4)$$

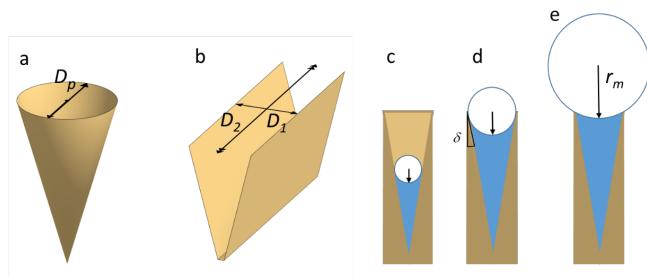


Figure 2. Illustration of pore shapes and pore filling: panel (a) shows an empty conical pore with diameter D_p and panel (b) an empty wedge-shaped pore with a width D_1 and a length $D_2 = \infty$. Panels (c) to (e) show pore condensation with increasing radius of the meniscus for a conical or wedge-shaped pore with pore opening angle δ and assuming complete wetting ($\theta_{ws} = 0^\circ$). The radius of meniscus in a conical or cylindrical pore is denoted r_m and the radius of meniscus in a wedge-shaped pore or trench is denoted $r_1 = D_1/2$, while $r_2 = D_2 = \infty$ (not shown).