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Abstract

The experimental setup is shown in Figure 1. The test cell consists of a cylindrical chamber (CAH) with a diameter of 4 cm and a length of 30 cm. The chamber is filled with a porous medium (PTFE) and is surrounded by a thermal insulation layer (T). The chamber is connected to a flow system (C) and a pressure measurement system (P). The flow system consists of a pump (P) and a flowmeter (F). The pressure measurement system consists of a pressure transducer (PT) and a data acquisition system (DAS). The test cell is placed on a support structure (S). The flow system is connected to the test cell through a tube (T). The pressure measurement system is connected to the test cell through a tube (T). The flow system is connected to the test cell through a tube (T). The pressure measurement system is connected to the test cell through a tube (T).

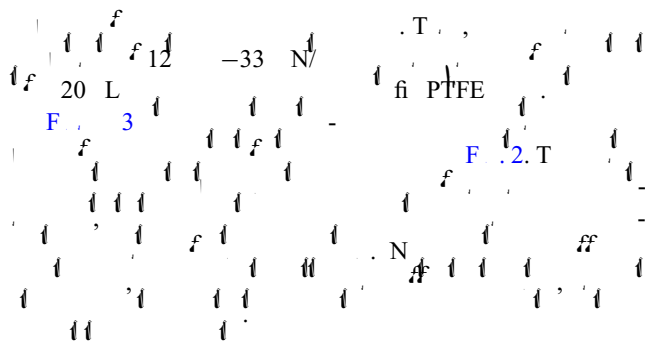
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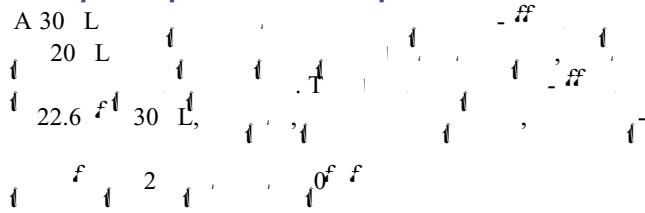
$$T_{ij} = \frac{1}{2} \rho v_i v_j + \rho \epsilon_{ijk} \omega_k \mathbf{r}_i \mathbf{r}_j + \rho \mathbf{r}_i \mathbf{r}_j \dot{\omega}_k \mathbf{e}_k + \rho \mathbf{r}_i \mathbf{r}_j \mathbf{r}_k \dot{\omega}_l \mathbf{e}_l + \rho \mathbf{r}_i \mathbf{r}_j \mathbf{r}_k \mathbf{r}_l \dot{\omega}_m \mathbf{e}_m + \dots \quad (9)$$

$(S_L) = 5 \text{ N/}$, $(S_L) = -80 \text{ N/}$, $(S_L) = 50 \text{ N/}$, $(S_L) = -10 \text{ N/}$. T
 F. 2() F. 2() F. 2() F. 2()
 F. 2() B

$(S_L) = 49.2 \text{ E}$



A 30 µL droplet on a tilted plate



$(10 \text{ N}, -14 \text{ N}), (3 \text{ N}, -80 \text{ N}), (50 \text{ N}, -5 \text{ N})$. A ... $(14 \text{ N}, -10 \text{ N})$... $(50 \text{ N}, -5 \text{ N})$...

Equilibrium, advancing and receding contact angles

T ... S ... F ... S8. E ...
 30 L ... 16.7, 29.3, 32.3, ... 21.7, ...
 O ... 20 L ... I ...
 E ... 4, 10, 20, ... 30 L ...
 S ... 8 ... S ... M ... O ...

Discussions on pseudo-line tensions

