

# Case studies in material testing

## Observing droplets on waterproof material

物理实验中的应用案例 – 观察防水物料上的液滴

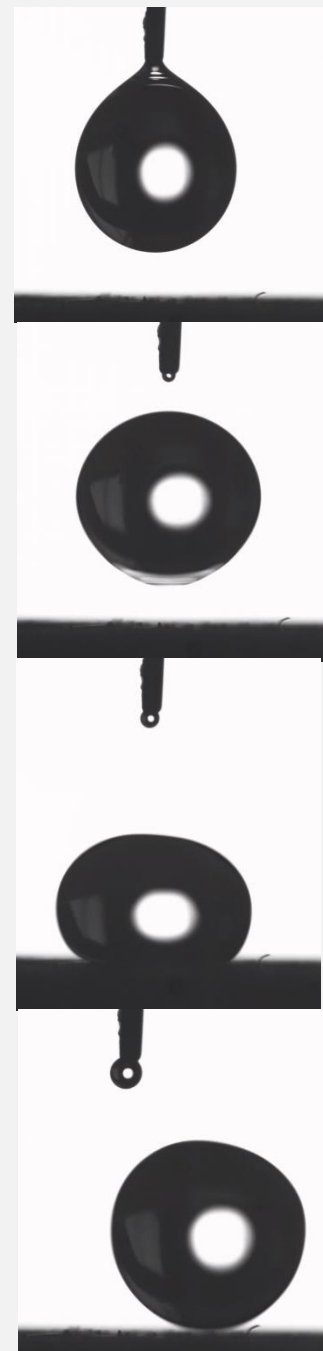
Images captured with high-speed cameras may let you think that the famous saying "seeing is believing" is not true in some cases.

High-speed imaging of a droplet shows that the droplet behaves like a ball when it falls onto a piece of waterproof material. It will be compressed and bounces into the air after it drops and hits the material.

当看见高速摄影所拍摄的图像时，你或许会感觉到眼见未必为实。在高速摄影下，滴落到防水物料上的液滴像一个小球。接触到防水物料后会压缩，然后弹起。

To film this amazing phenomenon, a high-speed camera that can achieve extremely low exposure time, high frame rate and most importantly high sensitivity to capture the moment is required to show you the truth. For this application a pco.dimax camera was used.

在拍摄你现在所看见的画面时，需要通过打光凸显液滴的形态。相机需使用极低的快门时间、极高的拍摄帧率进行拍摄。但必须保证足够的灵敏度，才可以拍摄到这个场景，揭示真正的物理状态。



A droplet falls onto a piece of waterproof material.  
液滴跌落到防水物料上