

### 3. Flow visualization behind a car rearview mirror

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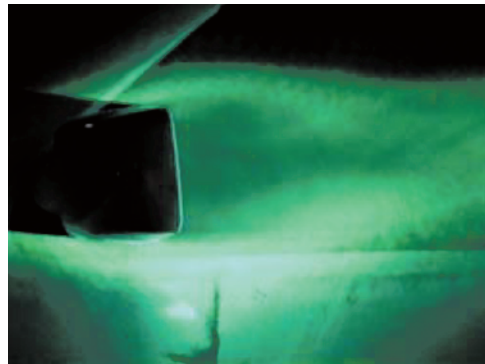


Fig. 1 (a)

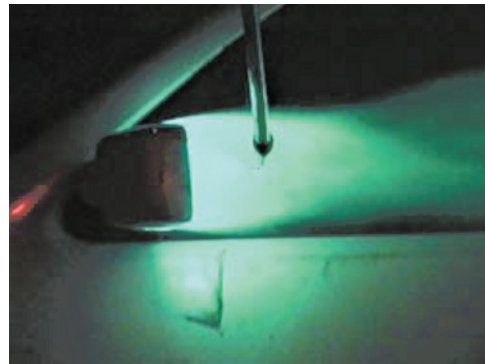


Fig. 1 (b)

Flow visualization of the wake of a rearview mirror made by a light-sheet and smoke. The first image shows mainly the flow out of the wake. The light-sheet comes from the back of the mirror, while the smoke is injected upstream. The second image intends to enhance the view of the inner wake. In this case, the smoke is injected immediately behind the mirror. The light-sheet is made by using an Argon-Ion laser and a multimode fiber 40 m long.



Fig. 2 (a)



Fig. 2 (b)



Fig. 2 (c)

### Flow visualization by helium-filled bubbles

The pictures show details of the flow in front and behind a full-scale passenger car. The first picture shows the complete flow field in front of the car, in particular the stagnation point on the bumper, as well as the flow entering the air inlet in the lower part of the bumper. The second picture shows the flow and its separation under the front spoiler. The third picture shows the flow over the backlight and behind the car rear end. Each picture is made by keeping the camera lens open, while the bubble dispenser is traversing the area of interest.