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(54) **Title:** LASER ABLATION CELL

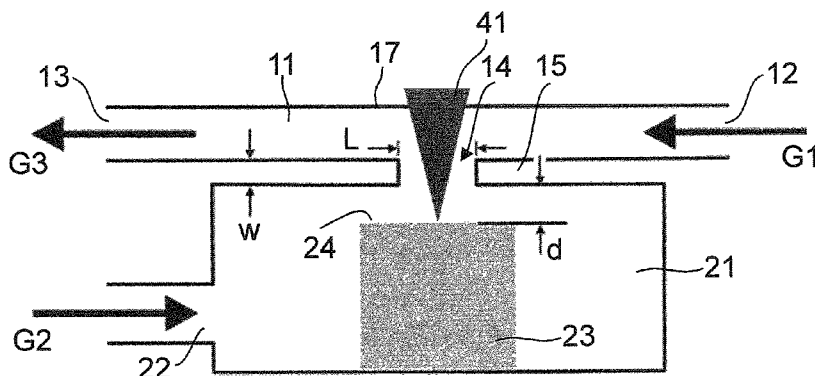


FIG. 2

(57) **Abstract:** A laser ablation cell (1) comprises a flow channel (11) having an essentially constant cross-sectional area so as to ensure a strictly laminar flow in the flow channel. A sample chamber (21) is provided adjacent to a lateral opening (14) of the flow channel. A laser beam (41) enters the sample chamber (21) through a lateral window (16) and impinges on a surface (24) of a sample (23) to ablate material from the sample. The sample may be positioned in such a distance from the flow channel that the laser-generated aerosol mass distribution has its center within the flow channel. This leads to short aerosol washout times. The laser ablation cell is particularly well suited for aerosol generation in inductively coupled plasma mass spectrometry (ICPMS), including imaging applications.