

The absolute amount of deuterium in amorphous deuterated carbon (a-C:D) layers has been measured by six laboratories with different techniques, such as MeV ion beam analysis, secondary ion mass spectrometry (SIMS), and thermal desorption spectrometry (TDS). The a-C:D layers have been deposited from a CD₄ glow discharge plasma onto carbon and silicon substrates. The results for the absolute numbers obtained with the different analysing techniques show a scatter of up to about 35% around the average value. These deviations are larger than the errors stated by the experimentalists and indicate possible systematic uncertainties in some of the measurements