DETERMINATION OF SILANOL NUMBER ON SILICA-GEL PARTICLES BY DEUTERIUM EXCHANGE AND INFRARED SPECTROSCOPY

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Silanol number in silica gel particles have been determined by analysing the composition of the H-O-D and D-O-D mixture formed by exchanging hydrogen from silanol groups with D2O. Multivariate data calibration was used in determining the composition from a calibration model. The BET surface area and the number of hydrogen atoms determined were used in determining the silanol number.