

P2.9.1 A COMPARATIVE PHYSICAL STUDY OF PARTICLES OF SOME TOMBUSVIRUSES IN SWOLLEN AND COMPACT STATES. A.D. Molina-García*, R.S.S. Fraser\$ and S.E. Harding\$. *Dept. Químico-Física Farmacéutica, Facultad de Farmacia, Universidad Complutense, 28040 Madrid, Spain. \$Institute of Horticultural Research, Littlehampton, BN17 6LP, U.K. \$Dept. AB/FS, University of Nottingham, LE12 5RD, U.K.

Tomato bushy stunt virus (TBSV) lends its name to the tombusvirus group, which includes virus members with quasi-spherical very similar but not identical particles. Four of these viruses (petunia asteroid mosaic virus, pelargonium leaf curl virus, carnation Italian ringspot virus and the "type" strain of TBSV) have been considered in this study. TBSV particles are known to undergo a swelling transition depending on pH and divalent ions concentration, involving a 12% diameter increase, and both states have been well characterized, by diverse techniques. However, no data are available about the rest of the tombusviruses swelling process. Their diffusion and sedimentation velocity behaviour has been investigated, both in swollen and compact states. Some hypothesis allowing and explication of the differences observed among particles of different viruses are suggested.

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