



**Figure 13.6.** Summary of the effects of various treatments on the formation and release of ajmalicine from *C. roseus*. G stands for growth medium and P for production medium. E indicates elicitor addition (2%) of an autoclaved culture of the fungus, *Phytophthora cactorum*, for a two-day exposure time; the neutral resin, amberlite XAD-7, indicates the addition of resin. Samples were analyzed 23 days after inoculation. (With permission, from M. Asada and M. L. Shuler, *Appl. Microbiol. Biotechnol.* 30:475, 481, 1989.)

**TABLE 13.4** Examples of Compounds Made in High Yields in Organ Culture But Not in Corresponding Callus or Suspension Culture

Compound	Plant	Form of culture
Cardenolides	<i>Digitalis lanata</i>	Somatic embryos
Digitoxin	<i>Digitalis purpurea</i>	Shoots
Diosgenin	<i>Dioscorea composita</i>	Shoots
Monoterpenes	<i>Pelargonium fragrans</i> (geranium)	Shoots
Morphinan alkaloids	<i>Papaver somniferum</i> (opium poppy)	Shoots
β-Peltatin	<i>Linum flavum</i>	Roots
Pyrethrins	<i>Chrysanthemum cinerariaefolium</i>	Shoots
Scopolamine	<i>Datura innoxia</i>	Roots
Tropane alkaloids	<i>Hyoscyamus niger</i>	Roots
Valepotriates	<i>Centranthus</i> sp.	Roots
Withanolides	<i>Withania somnifera</i>	Shoots