

57. There are some who disagree and actually arrive at the exact opposite conclusion. They maintain that *tekhelet* could not be the exact molecular equivalent of *kala ilan*, since the Talmud does propose that tests could distinguish between them. In my opinion, this argument is not credible. On the basis of current understanding of the dye chemistry and the standard interpretation of the Talmudic tests, those procedures would not cause any change in cloth dyed with plant based indigo, *kala ilan*, which was meant to fade under their influence. If one wants to uphold the chemical efficacy of the tests, one would have to posit that there are some yet-to-be-understood reactions that involve, perhaps, the methods by which the ancients dyed. If this is true, then one can take that reasoning further and apply it to murex dyeing as well. After all, there are significant amounts of many other substances along with indigo in murex-derived dye. Even if those additions are too small to be detected by the eye and change the perceived hue, they may play some little understood chemical role that is picked up via the Talmudic tests.