Authors’ Response

Sir:

We received the letter to the editor from the esteemed Paint Subgroup of SWGMAT and would like to reply on the mentioned problems.

In our case work, we hardly encounter paint evidence that could be manually removed, mainly due to its small size. Our experience when collecting paint evidence at crime scenes or accident sites, we often only have the choice either to collect the evidence in tape or not to have any evidence available for examination.

As stated in the paper, we know that there are some effects of the xylene on some lacquers. The mentioned dispersion lacquers from old GMC cars are rarely found in our case materials. In addition it is evident for us to keep the exposure time of the solvent on the paint chip as short as possible and to treat evidence and reference material exactly the same way. For us, the mentioned possible resin (binder) extraction has not shown to be a problem in practice.

Regarding the claimed significant differences in the spectra we have checked the original spectra again. The correspondence between the spectra of the treated and untreated samples is much better than it appears in the published spectra. We do not know the reason for this artifact. We cannot find any influence of the adhesive (2-ethylhexyl acrylate polymer) of our carefully selected tape for the collecting of evidence.

At the moment, we do not use Pyrolysis gas chromatography for routine examination of paint chips. So we do not know exactly if there would be seen any influence of the xylene or of the adhesive with this more sensitive technique.

The mentioned discrepancy in transmission intensities really exists in our spectra. At that time, there were some minor technical problems with the microtome. It was difficult to cut at a controlled four-micron section thickness. In the meantime we have changed to a hard metal blade and are getting more consistent results.

As a final conclusion—being aware of the practical problems resulting from collecting paint evidence with tape—we still consider that the advantages of the method clearly prevail the disadvantages.

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