Methods of Fire Debris Preparation for Detection of Accelerants


ABSTRACT: Forensic scientists use various techniques to separate accelerants from fire debris samples before instrumental identification of added fuels. Among the choices available, traditional micro-distillation, steam distillation, vacuum distillation, headspace, heated headspace, and several vapor adsorption/desorption methods provide various advantages and disadvantages. This communication reviews the development of these techniques from the 1950s and comparison studies performed.

KEY WORDS: Accelerants, criminalistics, fire debris, trace evidence.