

Application of INAA and PIXE in elemental analysis of vehicle glasses for forensic sciences

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The use of nuclear techniques for elemental analysis has been successfully developed in many laboratories in the IAEA Member States, including Vietnam. The nuclear techniques have also been proven to be extremely powerful in provenancing samples relevant to forensics. In framework of the CRP project on Enhancing Nuclear Analytical Techniques to Meet the Needs of Forensic Sciences (IAEA CRP F11021), the total of 29 elemental concentrations in 48 vehicle glass samples has been determined by neutron activation analysis (NAA) and particle induced X-ray emission (PIXE) methods. In this work, obtained results from the statical analysis indicated that REEs (La, Ce, Sm, Eu, Tb, Yb), transition (Sc, Ti, Mn, Fe, Co, Ni, Cu, Zn) and major (Al, Si, Mg, Fe, Ca) elements play a significant role in the group study of vehicle glasses.

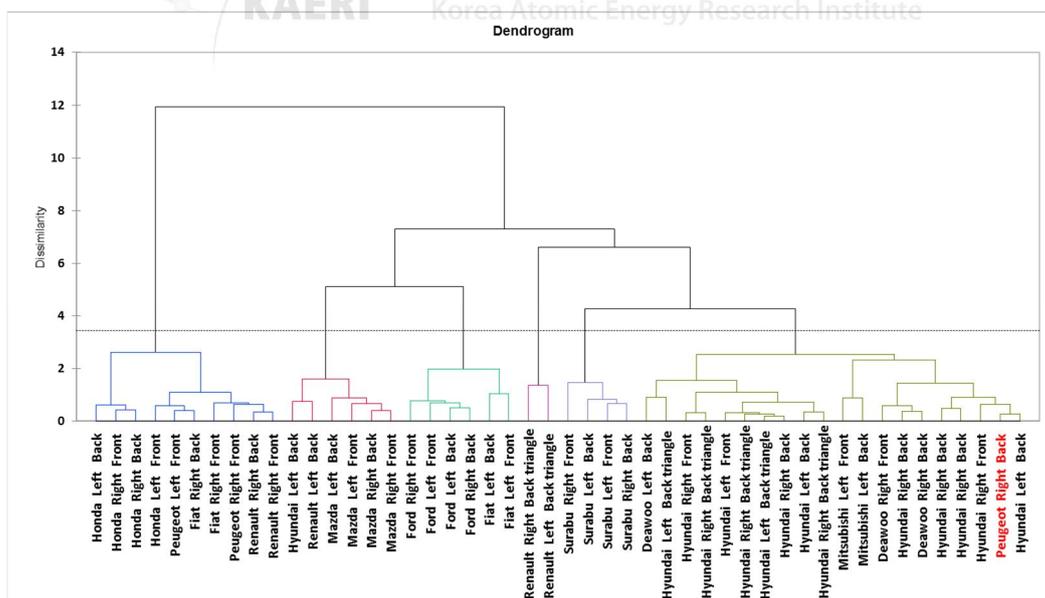


Fig. 1. Results of grouping glass samples by AHC method.

