Two Anniversaries and Three Generations

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Fifteen years of JFIA and 25 years of Flow Injection Analysis (FIA) coincide at the a time when nearly 10,000 papers have been published on this methodology (Source: FIA Database at: flowinjection.com). A lions share of these papers has been published in JFIA and nearly all of them are recorded in JFIA bibliography section.

Anniversaries often mark the end of a period of a successful development, but in this case we are celebrating a milestone of a continuous growth and development. While in the past FIA has evolved trough two generations: the continuous flow FIA, and the discrete flow Sequential Injection - it is now about to enter the third phase of development. While traditional format of FIA is still most widely used, I believe that SI, being computer compatible and much more economical then the traditional continuous flow FIA, will gain much broader acceptance in the future. This is because a number of research groups working in SI format is growing, and also because the initial technical hurdles (design of user friendly software and selection of suitable hardware) have been overcome: reliable SI systems are now commercially available (flowinjection.com) and (GlobalFIA.com). This allows FI research to be refocused on the study and application of chemistry, biochemistry, drug discovery and on development of novel combinations of SI with instruments such as AA, ICP, FTIR, Raman and numerous electroanalytical techniques.

The next phase of FI evolution takes place on its boundary with chromatography. This is because FI is now borrowing yet another tool from the arsenal of chromatography: the stationary phase. Truly, in the past, chromatographic supports have often been used in FI configuration but always in a form of packed columns or packed reactors. However, the new technique, termed Bead Injection relies on injection and programmed movement of slurry of beads within SI system. There the beads are captured in a specially designed flow cell and the changes of their spectral or electrochemical properties are monitored upon the contact with analyte zone. This approach impacts the design of chemical sensors, reagent based assays as well as chromatographic techniques since it allows automated replacement of reactive surfaces that have been fouled or desactivated by

contact with real life samples.

Journal of Flow Injection Analysis has made a valuable contribution to Analytical Science and to related research, fields by facilitating the flow of information, not only between Japan and rest of the world, but also worldwide. We are all grateful to its founders, staff and contributors for keeping the scientific community aware of benefits that flow injection offers. This anniversary is significant, as well as a happy one. Happy, because the versatility of FI technique and enthusiasm of the members of the Japanese Association for Flow Injection Analysis is a guarantee of many anniversaries yet to come!