Boron Analysis in Glass using WDXRF

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Wavelength Dispersive X-Ray Fluorescent Spectroscopy (WDXRF) has been used at Corning Incorporated for routine composition monitoring since the early 1960's. The instrumentation and sample preparation options have improved over the years providing more and more opportunities for process monitoring with WDXRF. The recent improvements in the WDXRF instrumentation; X-ray tube design, tube coupling, improved multi-layer analyzing crystal, and flow detector design have made it possible to analyzed boron by WDXRF. Boron analysis by WDXRF is still difficult, with low fluorescent yields, as are other methods for boron determination. I will present our laboratories Boron by WDXRF analysis efforts for process control of Boron in glass materials.