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**Preferential Sputtering and Surface Segregation of CuZr alloy**

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The changes included in the surface composition of CuZr(50 at %) by Ar<sup>+</sup> ion bombardment has been studied using ion scattering spectroscopy(ISS), Auger Electron Spectroscopy(AES) and X-ray Photoelectron Spectroscopy(XPS). In ISS analysis for the composition of outermost atomic layer, pure materials such as AES and XPS were used as standards. ISS results indicate that the outermost atomic layer is Zr rich, comprising  $85\pm 5\%$ , whereas AES and XPS gives that the subsurface is also Zr rich, comprising  $70\pm 5\%$ . These results suggest that the Ar<sup>+</sup> ion bombardment induces an altered layer in depth in which Zr concentration approach exponentially to the bulk concentration. It is quite different from altered layers of other alloys, such as NiZr, AuCu, CuNi etc., which have dip layer at the surface. The results of thermally annealed experiment will be presented in this paper.