

## Effects of proton beam irradiation on the solid oxide electrolyte

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**Abstract :** The effects of proton beam irradiation on the yttria-stabilized zirconia (YSZ) pellets have been investigated using SEM, EDX and TGA. 130 keV proton beam was irradiated on YSZ with high doses and annealed at various temperatures. The ion conductivity was also measured as a function of proton irradiation temperature and annealing temperature and the results were compared with their corresponding SEM images and the results of SRIM calculations.