## Abstract

High power LINACs are designed and built for several purposes. Based on their application the beam and machine parameters are different dictating unique design for each single usage. Spallation neutron sources are a group of high power LINACs, in two families of short and long pulses. The spallation process is an induced nuclear reaction from which plenty of white neutrons are emitted due to proton bombardment. Architecture of a high power LINACs with emphasis on long pulse spallation sources and their difficulties will be presented.