



## The Muon Spin Spectroscopy Technique

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### Abstract

I will give an introduction into muon spin rotation, relaxation and resonance techniques - abbreviated:  $\mu$ SR.  $\mu$ SR is a local probe technique akin to NMR, EPR, or Mössbauer spectroscopy. Mostly the positive muon is used as a very sensitive local, i.e. atomic scale, magnetic probe. The lecture will cover the production and essential properties of the muon before going over to discuss its application with the focus to solid state physics and material science.  $\mu$ SR can be used to study bulk as well as thin film systems.