

## Introduction to Zr Alloys for Nuclear Applications

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### **Further Reading Suggestions**

Ron Adamson and Peter Rudling are two of the greats in Zr research and the chapter in this book is a good (detailed) summary of all of the issues surrounding the in-reactor performance of Zr alloys. You can get a feeling for the current research on Zr alloys by browsing through some of the overview topic papers. Manchester is also part of a new 5-year programme grant studying the effect of irradiation damage on material degradation (MIDAS). The MIDAS programme has a number of different projects running, which will tackle some key scientific challenges in helping to improve the lifetime of fuel rods. The projects listed on the MIDAS site will give you an idea of the latest research looking at improving the in-reactor behaviour of Zr alloys.

- Book Chapter – R.B. Adamson, P. Rudling, Properties of zirconium alloys and their applications in light water reactors (LWRs), In Woodhead Publishing Series in Energy, Materials Ageing and Degradation in Light Water Reactors, 2013, pages 151 - 245, <https://doi.org/10.1533/9780857097453.2.151>
- Website – An Overview of Research on Zirconium Alloys, Science Direct, <https://www.sciencedirect.com/topics/engineering/zirconium-alloys>
- Website – MIDAS, Research Programme for Mechanistic Understanding of Irradiation Damage in Fuel Assemblies <https://www.zr-midas.org>