



EINLADUNG

zum

VERA-SEMINAR

von

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**Josef Schintlmeister and the *1.8-cm Alphastrahler***

During the Second World War, several Institutes in Germany and Austria were loosely connected by the so-called *Uranverein*. The Austrian nuclear physicist Josef Schintlmeister (1908-1971) was part of the Vienna group headed by Georg Stetter, which mainly dealt with fission and neutron (resonance) absorption cross section measurements. From 1940 to 1942 Schintlmeister (partly together with Friedrich Hernegger) published four classified internal reports of the *Uranverein* on the observation of an unknown alpha radioactivity in natural minerals, with an alpha-particle range of 1.8 cm in air (equivalent to an energy of 3.1 MeV). He ascribed this radioactivity to a “new” transuranic element with  $Z=94$  (plutonium) and  $A=244$  ( $^{244}\text{Pu}$ ), and characterized it as fissionable.

We give a short biographical sketch of Schintlmeister’s life as an alpinist and a physicist, followed by a discussion of his four papers of 1940/42 on the so called *1.8-cm Alphastrahler*. A critical evaluation of these papers, supported by later work of Schintlmeister et al., himself at the TU Dresden and the Zentralanstalt für Kernforschung in Rossendorf (DDR), will be presented.

**Donnerstag, 9. Juni 2011, 16:30 Uhr**

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",  
1. Stock, Victor-Franz-Hess Hörsaal**