1106-13-1319 **Andreas Reinhart*** (andreas.reinhart@uni-graz.at), Karl-Franzens-Universität Graz, Institut für Mathematik, Heinrichstrasse 36, 8010 Graz, Styria, Austria. *On conductor ideals.*

Let S be a commutative ring with identity, R a subring of S, and I an ideal of S. We say that I is an R-conductor ideal of S, if $I = \{x \in S \mid xS \subseteq V\}$ for some intermediate ring V of R and S. $\mathbb{Z}$-conductor ideals have already been investigated by P. Furtwängler about a century ago. They have also been studied by G. Lettl and C. Prabpayak just recently. P. Furtwängler provided a characterization of $\mathbb{Z}$-conductor ideals of principal orders in algebraic number fields. We generalize and rediscover his result by using the techniques of modern algebra. Moreover, we present sufficient criteria for being an R-conductor ideal of S. We show, for instance, that if S/I is Noetherian, $R/I \cap R$ is a principal ideal ring, and every $P \in \operatorname{spec}(S)$ with $I \subseteq P$ satisfies $R + P \subsetneqq S$ or $\{x \in R \mid xP \subseteq I\} \subseteq I$, then I is an R-conductor ideal of S. We complement our results by presenting a few counterexamples. (Received September 12, 2014)