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^{187}Re-^{187}Os nuclear geochronometry: enhancing high-precision geochronology

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^{187}Re-^{187}Os nuclear geochronometry is a new age dating method, tightly constrained by a coupled ^{187}Re-^{232}Th-^{238}U systematics [1-5], which shows an enormous potential for high-precision geochronology. Here, principles, applications and problems of the new method are presented. Theoretical background, sample selection, nucleogeochronometric patterns and the calculation of so-called nucleogeochronometric TPI ages are discussed. Examples are given for a set of different nuclear geochronometers currently used for age-dating, including so-called fractionated chronometers.

[1] Roller (2015), *Goldschmidt Conf. Abstr.* **25**, 2672. [2] Roller (2016), *Goldschmidt Conf. Abstr.* **26**, 2642. [3] Roller (2016), *JPS Conf. Proc., Nuclei in the Cosmos (NIC XIV), submitted, #T02600.* [4] Roller (2016), *JPS Conf. Proc., Nuclei in the Cosmos (NIC XIV) submitted, #T02601.* [5] Roller (2016), *JPS Conf. Proc., Nuclei in the Cosmos (NIC XIV), submitted #T02602*.