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Thermopower as sensitive probe of electronic nematicity in iron pnictides[1] PHILIPP GEGENWART, I. Physikalisches Institut, Georg-August University of Goettingen — We study the in-plane anisotropy of the thermoelectric power and electrical resistivity on detwinned single crystals of isovalent substituted $EuFe_2(As_{1-x}P_x)_2$. Compared to the resistivity anisotropy the thermopower anisotropy is more pronounced and clearly visible already at temperatures much above the structural and magnetic phase transitions. Most remarkably, the thermopower anisotropy changes sign below the structural transition. This is associated with the interplay of two contributions due to anisotropic scattering and orbital polarization, which dominate at high- and low-temperatures, respectively. Preprint available at arXiv:1210.2634.

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