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NMR investigation of iron-selenide and iron-arsenide high T_c superconductors

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We have investigated the electronic, magnetic, and superconducting properties of the iron-selenide high T_c superconductor $K_xFe_{2-y}Se_z$ (T_c = 33 K) with ^{77}Se NMR [1]. We will compare the results with those observed for FeSe in ambient and applied pressures ($T_c > 9$ K) [2], and with iron-arsenides [3]. Similarities and dissimilarities will be pointed out, with primary focus on the anomalous normal state properties. Our latest work on $K_xFe_{2-y}Se_z$ was carried out in collaboration with D. Torchetti, M. Fu, D. Christensen, K. Nelson (McMaster), H. Lei, and C. Petrovic (Brookhaven National Lab).

[1] D. Torchetti et al., PR **B83**, 104508 (2011).
[2] T. Imai et al. PRL **102**, 177005 (2009).
[3] F.L. Ning et al., PRL **104**, 037001 (2010); JPSJ **78**, 103711 (2009).