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On the Phase Diagram of  $\operatorname{FeSe}_{1-x}\operatorname{As}_x^1$  KHALIL ZIQ, T. OWOLABI, King Fahd University of Petroleum and Minerals, Physics Department — Structural, magnetic and transport measurements have been performed on  $\operatorname{FeSe}_{1-x}\operatorname{As}_x$  samples in the normal and superconducting state in an effort to obtain the phase diagram. It is found that As-substitution drastically suppress the superconducting state while it has little effect of structural transformation as the temperature decreases. Moreover, low As-concentration ( $\sim 1\%\operatorname{As}$ ) has been found very effective in stabilizing the  $\beta$ -FeSe phase.

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Khalil Ziq King Fahd University of Petroleum and Minerals, Physics Department

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