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**Quasi-One Dimensional Analogues of $BiS_2$-Based Superconductors**[1] JESSICA PANELLA, JUAN CHAMORRO, TYREL MCQUEEN, Johns Hopkins Univ — Many recently-reported superconductors have layered structures consisting of superconducting planes separated by insulating charge reservoir layers. Studies linking the width of the blocking layer to the critical temperature of the superconductivity onset draw a direct connection from the superconducting properties to the structure. We report three new compounds ($Sr_2O_2Bi_2Se_3$, $Ba_2O_2Bi_2Se_3$, and $Sr_2O_2Sb_2Se_3$) which are quasi-one dimensional analogues of the bismuth sulfide and bismuth selenide superconductors, providing a unique opportunity to study the role of dimensionality on superconductivity. The physical properties of the compounds were studied via magnetic susceptibility, thermal transport, resistivity, and heat capacity.

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