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High-spin states in <sup>118,120</sup>Sn above the 10<sup>+</sup> isomers. N. FOTI-ADES, M. DEVLIN, R.O. NELSON, LANL, J.A. CIZEWSKI, Rutgers Univ., R. KRUCKEN, T.U.Munich, R.M. CLARK, P. FALLON, I.Y. LEE, A.O. MACCHI-AVELLI, LBNL, W. YOUNES, LLNL — High-spin states in <sup>118</sup>Sn and <sup>120</sup>Sn were studied via prompt  $\gamma$ -ray spectroscopy. The data were obtained in three Gammasphere experiments at LBNL with reactions populating both isotopes as fission fragments following fission of much heavier compound nuclei. Additional data were obtained in a GEANIE experiment at LANL where the isotopes were populated as evaporation residues in the <sup>124</sup>Sn( $n, xn\gamma$ ), with x = 5, 7, reactions. Sequences of transitions were observed for the first time feeding the previously known 10<sup>+</sup> isomers, at 3108-, and 2902-keV excitation energy, and with  $2.5\mu$ s and  $6.26\mu$ s half-life, for <sup>118</sup>Sn and <sup>120</sup>Sn, respectively. The level schemes above the isomers were established up to 6646-, and 5673-keV excitation energy, for <sup>118</sup>Sn and <sup>120</sup>Sn, respectively. The experimental results are compared with predictions from shell-model calculations.

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