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Reactions and Coulex at TRIUMF, progress and prospects of SHARC CHRISTIAN AA. DIGET, University of York, Heslington, York, United Kingdom, FRED SARAZIN, Colorado School of Mines, SHARC COLLABORA-TION — The Silicon Highly-segmented Array for Reactions and Coulex (SHARC) is a multi-purpose array for charged-particle detection. The array is designed to have high spatial resolution, a large solid angle coverage, and particle identification of the measured reaction products. This combination offers unique capabilities when integrated with the TIGRESS gamma-ray detectors and the post-accelerated beams at the ISAC-II facility at TRIUMF, Canada. Two major research programs will gain significantly from the utilization of SHARC: Reaction studies with particular emphasis on transfer reactions used to indirectly probe nuclear reaction rates important for explosive stellar scenarios as well as nuclear structure studies in which Coulomb excitation will play an important role. The project is funded by the UK-STFC and is lead from the University of York with collaborators from the UK Universities of Birmingham, Liverpool, Manchester, and Surrey, and Daresbury Laboratory; Colorado School of Mines and Louisiana State University of the USA; and from Canada: TRIUMF as well as McMaster, Saint Mary's, and Simon Fraser Universities.

Christian Aa. Diget University of York, Heslington, York, United Kingdom

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