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Instantaneous and Cumulative Star Formation in Moderate Redshift Galaxy Clusters JACOB CURTIS, KENNETH RINES, Western Washington University, ROSE FINN, Siena College, ALEXEY VIKHLININ, Smithsonian Astrophysical Observatory — Galaxy clusters provide a laboratory for determining the impact of environment on star formation in galaxies. Spitzer IRAC and MIPS photometry is used to measure stellar masses and star formation rates in a sample of 36 X-ray-selected clusters at moderate redshift. Statistical background subtraction is applied to IRAC photometry to construct luminosity functions. Using MIPS 24-micron imaging, mid-infrared sources are identified as candidate star-forming galaxies. Likely cluster members and instantaneous star formation rate are determined by IRAC and optical photometry. Specific star formation rates for the cluster galaxies are calculated and compared with field galaxies at similar redshifts. The cluster-averaged sSFR is also calculated. This study represents the largest sample of moderate redshift X-ray clusters to date and will provide insights into the evolution and efficiency of star formation in the cluster environment.

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