

R42a The Origin of E+A Galaxies

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E+A galaxies are interpreted as a post-starburst galaxy due to their strong Balmer absorption lines and their lack of any [OII] or H α emission lines. For more than 20 years, however, it has been a mystery why E+A galaxies started starburst and why they stopped star formation abruptly. There have been three possible explanations for E+A galaxies; (i) cluster-related phenomena (e.g., ram-pressure stripping)(ii) galaxy-galaxy merger/interaction (iii) dust-enshrouded star formation. Using one of the largest samples of 133 E+A galaxies selected from the Sloan Digital Sky Survey data, we tested these three possible scenarios one by one to reach a definitive conclusion on the origin of E+A galaxies.