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Universiteit Leiden



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# Stellingen

behorende bij het proefschrift

*Galaxy formation traced by heavy element pollution*

1. Not only the amount of gas ejected by stars, but also the efficiency of stellar and AGN feedback, determines the role of stellar ejecta in the formation of new stars in a galaxy.  
Chapter 2
2. The combination of stellar metallicity and  $\alpha/\text{Fe}$  abundance ratio of a galaxy is a good indicator of the fraction of its stellar mass that is contributed by stellar ejecta.  
Chapter 2
3. AGN feedback can explain the observed increase of the  $\alpha/\text{Fe}$  abundance ratio as a function of stellar mass and age of massive, early-type galaxies.  
Chapter 3
4. Neglecting the relic photoionization by faded AGN can lead to huge misinterpretations of observations of the circumgalactic medium.  
Chapter 4
5. The circumgalactic medium of low-mass galaxies, with stellar masses  $\lesssim 10^9$  solar masses, is enriched with heavy elements out to distances of at least four times the halo virial radius.  
Chapter 5
6. In contrast to what is frequently claimed, observations of quasar absorption-line systems cannot constrain the duration of individual episodes of AGN activity.
7. Communication in academia is often inefficient, as it is predominantly focused on the contents and less on the form.
8. Astronomers should avoid participating in a ‘paper cascade’ from more to less prestigious journals as is common in fields like physics and biology.
9. The scientific community would benefit from a more fluid transition between academia and industry, in both directions.
10. The language and culture of a country are inextricably intertwined.